

AMERICAN GAS ASSOCIATION MONTHLY

MARCH • 1936

Management and Public Relations

E. R. ACKER

Retirement Plans and Security

J. B. WARREN

The Natural Gas Sales Outlook

C. E. BENNETT

Nation-Wide Refrigerator Contest



Report on Back-Pressure Data On Natural Gas Wells and Their Application to Production Practices

Results of an investigation conducted as
a cooperative study by the United States
Bureau of Mines and the Natural Gas De-
partment of the American Gas Association.

In January, 1929, the subcommittee on Gauging Gas Well Deliveries, N. C. McGowen, chairman, was assigned the specific problem of devising a practical method to gauge gas well deliveries under any pressure conditions, including open flow, without opening the wells wide to the atmosphere. A method has been devised which is based upon the use of back-pressure data. The report also includes a comprehensive study of the application of back-pressure data to production practices.

The report contains numerous data on representative gas wells in different areas throughout the United States which were obtained by carefully conducted tests. These data, together with all available information, have been analyzed to secure practical methods of gauging gas well deliveries and to determine how back-pressure data can be applied to production practices.

The back-pressure method of gauging gas well deliveries has been adopted by many companies who are finding it practical and beneficial in their operations.

The report is available to the industry in code form at 50 cents per copy; two to 24 copies at 40 cents each; all over 25 copies at 30 cents each.

AMERICAN GAS ASSOCIATION
420 Lexington Ave., New York, N. Y.

AMERICAN GAS ASSOCIATION MONTHLY

Contents for March 1936

VOLUME XVIII NUMBER 3

Management Policies and Good Public Relations	83	Affiliated Association Activities.....	104
ERNEST R. ACKER		Lone Star Gas To Build Hall of Religion for Texas Centennial.....	107
Retirement Plans and the Social Security Act..	87	Management and Athletics.....	111
J. B. WARREN		WESLEY N. GEITER	
The Natural Gas Sales Outlook.....	89	Greater Sales Effort Urged at Annual Regional Conferences.....	113
C. E. BENNETT		Industrial Gas Sales Group To Meet in Detroit	116
Galvanizing with Gas in France.....	92	Gas Air Conditioning Featured at Heating Exposition.....	117
P. G. BOURCIER		HARRY SWENSON	
Cooking Contest Proves Speed of Gas.....	94	News of Industrial Gas Publicity.....	117
WILLIAM E. LEVERETTE		Distribution Conference at Memphis To Consider Important Problems.....	118
Sir Francis Goodenough To Retire as Head of British Gas Association.....	96	ERICK LARSON	
New Gas Unit Enters Summer Air Conditioning Field.....	98	Distribution Committee To Hold Five Luncheon Conferences.....	118
EUGENE D. MILENER		D. P. HARTSON	
Nation-Wide Campaign To Promote Gas Refrigeration Opens in April.....	100	Personnel Service.....	120

Published monthly by the American Gas Association, Publication Office, American Building, Brattleboro, Vt. Editorial Offices, 420 Lexington Avenue, New York, N. Y. Address all communications to 420 Lexington Avenue, New York, N. Y. The Association does not hold itself responsible for statements and opinions contained in papers and discussions appearing herein. Entered as Second Class Matter at the Post Office at Brattleboro, Vermont, February 10th, 1922, under the Act of March 3, 1879.

SUBSCRIPTION RATE : \$3.00 A YEAR





Courtesy School of Mineral Industries' Gallery,
The Pennsylvania State College

*By-Product Coke Plant, Clairton, Pa.,
painted by A. H. Gorson, donated by Edward Steidle*

AMERICAN GAS ASSOCIATION MONTHLY

James M. Beall, Editor

Management Policies and Good Public Relations

PUBLIC relations need no introduction in the public utility industry! In the vernacular of the modern youth—"What it takes to have them, we've got!" We have them in all of their various forms, good, bad and indifferent; we have them as a result of our own efforts and as a result of the efforts of others. They are, in fact, so well known to all of us that I realize fully that new light on the subject is not easily found. I am encouraged, however, by the fact that your program announces this meeting as a *business* conference, and it is my purpose to discuss public relations not as an abstract subject but as it relates to the management of your business.

There has been some tendency in the past to relegate the function of public relations to a special department of the business highly qualified in that particular field and charged with the duty of safeguarding the company's relationships with its customers. This practice is good as far as it goes, but it falls far short of the real needs of our business, when viewed from the standpoint of management. It is this broader aspect of the subject that I am interested in discussing at this time. I realize fully that the importance of intelligent customer contact work, including courteous treatment, prompt service, fair dealing, understandable rates and simplified meth-

By ERNEST R. ACKER

President, Central Hudson Gas and Electric Corp., Poughkeepsie, N. Y.



Mr. Acker

ods, can hardly be overemphasized. It is my judgment, however, that the most important relationship today is that of good public relations to sound business management.

It seems scarcely necessary to point out that public relations are the result of customer experience. They are a measure of the ability and integrity of management. They are achieved as the net effect of all of our actions, or lack of action; and are expressed in the composite picture of our business, existing in the minds of our customers. Good public relations cannot be created by words and cannot be pur-

chased—they are the result of good performance. Good performance is determined not only by the detailed daily contacts carried on in all departments of the business but, to an even greater extent by the management policy of the company. From this standpoint public relations are a matter of direct executive responsibility and depend in a large degree on the attitude of the management toward its responsibilities and obligations to the public which it serves.

It has been frequently stated in recent years that if the utility industry had paid less attention to its possibilities for profit and more to its responsibilities to its customers, many of its present troubles would have been avoided. It is for this reason that in any discussion of public relations I am interested first in the *management policy* of your company. Is it broad and liberal? Is it sufficiently flexible to recognize social as well as economic change and to allow for the full development of the business? And, incidentally, is it fully stated in writing for the instruction of your organization? Some time ago, I had occasion to prepare such a statement for discussion with the employees of my company and I was amazed at the difficulty of stating in writing something which I had thought was so clear in my mind. If you have not already undertaken such an assignment, I commend it to you highly as an interesting mental exercise. My own viewpoint as to the

relationship between a public utility and its customers is indicated in a brief excerpt from the Central Hudson statement, as follows:

"The position of the management of a utility company is in the nature of a trusteeship. Operating as a monopoly in its own field under the principles of public regulation, the utility must demonstrate that such action is in the public interest. Its purpose must be to render a high character of service at fair and reasonable rates and to conduct its business with integrity and without unjust discrimination. It is the policy of this company to strive for the full development of the business in the area which it serves and to reduce rates as rapidly as consistent with the maintenance of reasonable earnings and fair compensation to its employees. The company seeks to develop the greatest amount of business which can be developed at a profit. This is the condition which is best for the company and for the public. It contemplates low competitive rates and high consumption, as against high rates and low consumption. It involves the full development of competitive markets for gas and electric service and furnishes the best and probably the only protection against public ownership and operation."

Business Development Factor in Public Relations

I appreciate fully that this statement involves no new or unusual theory. I refer to it only to stress my conviction that the full development of our business is the most important element in any management policy and in the maintenance of good public relations. The result of my experience to date indicates that all of the important elements of the management problem are favorably affected by the full economic development of the business. I am not here, however, to discuss the economics of the gas business, but to examine with you the important factors in the creation of good public relations.

I am entirely conscious of the fact that the "full development of the gas business" in the face of present-day competition is a large order, and I have no patent panacea for all of our troubles. I feel keenly, however, that

National Advertising Pledges Reach Nearly 90% of Quota

Herman Russell, chairman of the Association's Committee on National Advertising, announces as of February 28 that total meters now pledged to support the three-year program number 9,863,272. This figure represents 89.2% of the quota of 11,005,400 meters necessary to get the program under way.

Commitments from companies having nearly 900,000 meters in active service were received by the committee between February 26 and 28. Other pledges are momentarily expected so that the committee, at the time of going to press with this issue of "The Monthly," considers it a certainty that more than enough meters will be entered to assure the launching of the program.

Personal contacts by Mr. Russell, members of his committee, and regional representatives acting in behalf of the committee, are mainly responsible for securing the highly gratifying results noted above. At a meeting of the committee at Association Headquarters on February 25 the situation was reviewed and opinion was unanimous that the committee should accelerate its selling activities until the quota is reached. Now that the committee is within striking distance of its goal it is almost a foregone conclusion that the gas industry will inaugurate a national advertising effort in the very near future. Once the necessary support is pledged, the next step will be to select by vote of participating companies a committee to proceed with the preparation of a plan.

At the February 25 meeting of the committee, Arthur Hewitt, president of the Consumers Gas Company of Toronto, suggested that many Canadian companies are eager to participate in the program on a basis in accordance with special conditions there. He said further that Canadian companies are in complete sympathy with the objectives of the program and that they desire to do their full part.

there is an unfortunate tendency on the part of many combination companies to throttle the gas departments of their business through the uneconomic development of the electric department. It is, in my opinion, contrary to the principles of good public relations to promote the sale of an uneconomic service as a means of meeting a pressing need for rate reduction. I am convinced that a fuller development of the small customer in the electric department is a more constructive solution of the rate problem than the reduction of the average rate paid by all customers through the sale of electric ranges and water heaters to a few.

It is the electric competition of today, however, and all of the other changing conditions with which we are confronted that demands the use of our best efforts in the promotion and maintenance of our business. If this involves casting loose from old conceptions, discarding pet ideas and violating old practices, the sooner we do so the better. Our greatest need in meeting the problems of today is for independence of thinking and flexibility of action.

With all this in mind, we have reached the conclusion in my own

company that the most important factor in the full development of the business is a knowledge of what the customer really wants and will buy. The results of our activities in this regard have enabled us to increase both sales and revenues during the past two years in spite of material rate reductions, and to look forward with confidence to further increases in the current year. These increases in revenues were accomplished, however, only through close study of competitive markets and the development of rates to meet the needs of the customer.

The market research and survey work carried on by my company has furnished the facts upon which our new business activities and rate changes have been based. In the first place, we maintain continuously a very complete Kardex file of all of our customers with an unusually complete record of all of the appliances which they use, and a record, in addition, of all competing services in their homes. These records are maintained by constant check by service men, meter readers and new business representatives and are the basis for our market studies. All customers, including residential, commercial and industrial, are called

upon by new business representatives from one to four times a year and a complete check is made of any changes in our sales possibilities. In addition, many complaints are taken care of before they become serious, and an opportunity is afforded the company to maintain a helpful personal service to its customers.

Customer Surveys Important

Aside from the continuous inventory of installed appliances, the company conducts, from time to time, field surveys to determine certain facts in connection with various sections of its markets. It is interesting to note that the results of these surveys are seldom those expected and that they have in fact entirely altered many of our pre-conceived ideas. Our most recent survey has been one conducted with our meter readers to determine the conditions of usage of every gas water heater on our lines. The survey indicated seven different conditions of water heating usage:—

1. Fully automatic heater.
2. Fully automatic heater, hand controlled.
3. Fully automatic heater with furnace coil.
4. Instantaneous heater.
5. Tank heater.
6. Tank heater with furnace coil.
7. Pot stove.

This survey required two months for completion and indicated the possibility for many constructive changes in our sales approach. It was interesting to find that in the City of Newburgh, where we had noted that the average consumption per residential customer was 3,000 cu.ft. per year below that in Poughkeepsie and Kingston, 30% of the automatic heaters were hand controlled—three times as many as in the case of the other two cities. This is the result of poorer industrial conditions in Newburgh, but indicates the possibility of selling more efficient modern heaters to a large number of our customers in that area. The company finances appliances over a 5-year period so that the monthly installment plus the bill for service is practically competitive with the cost of other services.

The water heater survey has also indicated a market among the very low

income group or the small incidental commercial users for the small instantaneous water heater. The market for this type of water heater can be further developed when this equipment has been added to the three-purpose range with a faucet on the range itself or piped to the sink with a small copper tube.

Surveys of the house heating field two years ago indicated that the average rate of 70¢ for 537 B.t.u. gas paid for the service at that time, made it available to only a small group of customers willing to pay a premium for convenience. Our study indicated that 20% of our customers, those whose incomes are \$3,000 per year or more could afford to pay an average price for gas purchased for house heating, of approximately 50¢ per thousand if the house were reasonably well insulated. The company, therefore, modified its rate to introduce a block of 54¢ per thousand after an initial block of 5,000 cu.ft., which represents a fair average of cooking and water heating use of customers in such income group. The full rate is as follows:

Cu.Ft. per Month	Net
First 300 or less	.75
Next 300 per 100 cu.ft.	.145
Next 2,200 per 100 cu.ft.	.14
Next 3,000 per 100 cu.ft.	.076
Next 19,000 per 100 cu.ft.	.054
Over 25,000 per 100 cu.ft.	.054

This rate is not competitive dollar for dollar with the cost of coal, but is sufficiently close to enable the company to get a large amount of house heating business for the reason that this class of customer will make some allowance, although not as much as is generally assumed, for labor saving, cleanliness and other intangibles. In connection with the house heating program, it may be of interest to state that we have actually filed as a provision of our residential gas rate schedules, the so-called Budget Billing Plan which involves an estimate of the total annual bill of the customer and payment therefor at equal monthly installments; and also our guaranteed maximum usage plan which provides that for the first year of house heating service the total charge to the customer

shall be guaranteed at a predetermined estimated figure.

Further surveys of the house heating market demonstrated last year the possibility of a market for gas during early fall and late spring for house heating. The company, therefore, added a supplement to its residential rate which allows the customer to heat his house with the combination of gas and coal for practically the same over-all cost as he formerly had for coal alone. The supplement provides that during the spring and autumn such customer may purchase all gas between 1,500 and 3,000 cu.ft./month @ 76¢/M and after 3,000 cu.ft. @ 54¢/M. To qualify for this supplement the customer must guarantee to use 50,000 cu.ft./yr. The company makes no guarantee, but watches the degree days carefully on each installation and when it is felt that the cost of gas will exceed the former coal cost the customer is called upon and advised of the facts and the temporary conversion burner is removed. Some of these calls have resulted in the customer insulating his home so that he could avail himself of automatic heating for a longer period. We have at this time 159 customers operating on this basis.

Insulation Cost Shared

Recent surveys of the small home market have developed the fact that the average owner of a \$6,500 to \$7,000 home can purchase for \$14/month the gas required for cooking, water heating and house heating where such home is properly insulated. We have cooperated, therefore, with 7 such home owners in insulating their homes at a cost of from \$300 to \$400 each. The cost has been shared equally by the company, the customer and the insulation company. In consideration of this assistance, these customers have allowed the use of their homes for advertising purposes and for limited inspection over a period of from two to three years. Such customers use approximately 300,000 cu.ft. per year and pay approximately 58¢ per thousand for all of their gas. This development, purely the result of market research and survey, will be an important factor in the full development of our markets.

One of the most important surveys which we have conducted is that cover-

ing 500 customers in the low income field. Fifty per cent of the customers in our territory have an income of \$2,000 a year or less and for this reason we are convinced that the full development of our business depends largely upon the determination of the conditions under which our service can be sold to this group. The survey was made among a group of 5,500 minimum billing customers who were found to be using coal for cooking and for heating the kitchen. We analyzed the living habits of this group and determined that these customers practically hibernate in the kitchen during the winter months; in many instances not heating various other portions of their homes. In many cases no central heating plant is installed and no hot water service is available.

Eliminate Preconceived Ideas

Right here it seems important to stress the fact that the development of this market involves the elimination of many of our preconceived ideas. These customers *don't want* and *cannot afford* to pay for fully automatic storage water heating. In previous years the normal procedure would be to take a deposit from such a customer and in the normal course of events bill him for the first month's service. Many of these customers have attempted in the past years to use gas for cooking and water heating and have found it impossible to do so for the reason that service could not be purchased in the same manner that they are obligated to purchase the coal or oil which they now use. Our survey disclosed how these customers purchased their coal, in most cases 500 lbs. at a time; how they purchased their oil, probably 5 gallons at a time; how many people in the family were working; how many days a week they work; when they are paid, and many other pertinent facts.

As a result of this study, it was obvious that the securing of the cooking load depended entirely on our own ability to provide for the heating of the kitchen during the winter months. The supplement to our residential rate was, therefore, made available for this service on the condition that the installation must include a permanently connected space heater of rated capacity not exceeding 100 cu.ft. per hour

which is the sole source of heat of all or part of the customer's dwelling. In addition, we instituted a weekly collection plan which allows the customer to pay for his gas service in the same manner as he formerly purchased coal and oil.

Our merchandising plan with co-operative dealers involves an offer of four different combinations financed over a 5 year-term: First, convert the coal range to a straight gas range by the installation of a range burner; Second, replace existing equipment

with a gas range and gas space heater; Third, replace existing equipment with the two or three purpose range; Fourth, replace existing equipment with a gas range and connect the kitchen to the central heating plant. Under this option the company actually finances the cost of such connection. These merchandising plans have resulted in replacing coal in 790 kitchens in the homes of our small income customers and we are optimistic as to the future of gas in this market. Additional development by manufac-

(Continued on page 112)

Philadelphia Celebrates Century of Gas Service



Window display commemorating anniversary

CITY and state officials, representatives of business and civic organizations and men and women engaged in all forms of municipal enterprise joined officers and directors of The Philadelphia Gas Works Company February 10 in celebrating the 100th anniversary of the opening of the city's gas works.

A dinner at the Bellevue-Stratford, a special issue of the company's magazine, special window displays, and other events were features of the occasion. The dinner was addressed by Mayor Wilson and George Connell, president of the City Council. John E. Zimmerman, president of The United Gas Improvement Company, was chairman, and Conrad N. Lauer, president of The Philadelphia Gas Works Company, was toastmaster.

It was exactly 100 years ago, February 10, that the gas works began to distribute illuminating gas to street lamps on Second Street, from Vine to South Street, from

the original manufacturing station known for many years as the "Ninth Ward Works."

The construction of the first gas works system in Philadelphia was based upon a report made by Samuel Vaughan Merrick, prominent engineer of that time, who was engaged by City Councils in 1834 to survey the gas-lighting field in Europe and submit recommendations. Present at the dinner were officials of the gas companies of Baltimore, Boston and New York, the three cities in this country which preceded Philadelphia in the manufacture and distribution of manufactured gas.

One feature of the dinner was the induction of the gas works as the "Baby" member of the One-Hundred-Year Club, a local organization of business firms which have been in continuous existence for a century or longer. A large number of representatives of those organizations were present.

Retirement Plans and the Social Security Act

THE Federal Social Security Bill recently enacted into law provides, among other things, an old-age industrial pension financed by joint contributions from employers and employees. In so far as the employees of the Rochester Gas and Electric Corp. are concerned, the Federal plan does not provide a pension equal to the pension under the company's plan.

However, in a letter dated August 20, 1935, addressed to all employees, President Herman Russell stated that "the pension to be received upon retirement by company employees will be the same after the Federal plan becomes operative as it is now, because the company will continue to operate its own pension plan on a modified basis and in cooperation with the Federal plan so as to make up the difference in amount of pension provided under its present plan and the pension to be provided under the Federal plan."

"Your status upon retirement on pension will thus be the same in so far as the amount of pension you will receive, although a portion of your pension may be paid to you through the Government, and the balance through the insurance company.

"Employees will continue to make the same pension contributions to the company. The company will pay to the Government that portion of the employees' contributions, together with its own contributions required to meet the Federal pension tax, and will pay the balance of the employee contributions together with its own further contributions as may be necessary to secure the total pension as at present, to the insurance company, as is now the case."

As is plainly stated in this letter the employees' status continues, under

By J. B. WARREN

Rochester Gas & Electric Corp.,
Rochester, N. Y.

the modified company and Federal plan, to be the same as under the retirement plan adopted by the company on January 1, 1933. The following discussion concerns the plan adopted at that time.

While there is a tremendous amount of intricate mathematical analysis required in the detailed development of a pension plan, the fundamental prin-

Passage of the Federal Social Security Bill containing provisions for an old-age industrial pension plan left many gas companies with the problem of what to do with retirement plans then in operation. Mr. Warren's article describes the Rochester Gas and Electric Corporation's retirement plan which will be continued in modified form in cooperation with the Federal plan, and which gives the company's employees the same benefits received prior to enactment of the Federal act. It is hoped to publish other companies' experience with this problem in future issues of THE MONTHLY.

ciples are fairly simple. The calculations are based upon the assumptions that employees will be retired at an advanced age, in our case at age 65 for men and 60 for women, and will receive in monthly pension payments, technically called retirement benefits, a percentage of wages from retirement until death. The pension to be paid must come from a reserve of money accumulated before the pension payments begin. Such reserves are usually built up by setting money aside at compound interest for pension purposes over a period of years. This reserve will be depleted by the amount of the pension payments and will be increased by the interest earned on the decreasing balance. Statistics show that on the average a man will live between 11 and 12 years from age 65. The reserve on the average must spread

over that period. Those who die under the average will leave reserves accumulated out of company contributions to provide for those who live longer than the average, but in every case all of an employee's personal contributions, with interest, are returned to him either in pension payments or as a death benefit to his beneficiary. The amount of reserve to be provided depends upon the amount of pension to be paid, and this in turn depends upon the wages, length of service, age and sex of the employee.

Appropriate calculations involving these factors for all the employees indicated; first, the amount which the company could afford to allow for that portion of the pension based upon past service for those employees who had been with the company prior to the adoption of the plan and for whom no reserves had been built up (obviously the cost of such past service credits would have to be borne by the company); second, the amount of the additional payments on the part of the company together with the amount of the contributions on the part of the employees which would be required to provide that portion of the pension benefit based upon service after January 1, 1933; third, the best method, all things considered, for financing the plan on a sound actuarial basis.

The annual retirement benefits, payable monthly, were set at 1% of the wages for the year 1931 as an annual basis for each year of continuous service prior to the installation of the plan, plus 2% of the actual wages for each year of continuous service after the installation of the plan.

The plan offers an option whereby a pensioner may elect to receive a smaller pension than normally due him, and of securing, after his death,

to and for the lifetime of his beneficiary, an equal amount of pension.

Since no part of the reserve required for past service had been accumulated, the practical arrangement was for the company to build it up over a period of time. The company therefore decided to contribute \$20,000 per month for this purpose and for pension benefits to accrue after January 1, 1933, provided the employees would contribute 5% of their yearly salary toward the latter benefit. On this basis pensions could be met as called for in the plan (excepting that retirements be restricted until January 1, 1938) and the reserve required for pensions, based on service prior to the installation of the plan would be accumulated by 1953.

The plan as thus outlined was submitted to the employees on a voluntary basis, with an overwhelmingly favorable response. Ultimately a contract was entered into with an insurance company for the administration of the plan.

The details concerning the administration of the plan and its various provisions were issued to all employees in a booklet of rules and regulations and a certificate defining each employee's rights and obligations under the plan was issued to each employee by the insurance company.

When the retirement plan went into effect January 1, 1933, there were in the employ of the company 59 persons who were beyond retirement age, 117 who would reach retirement age within five years after the adoption of the plan, and 579 who had been with the company fifteen years or more, and who had special rights under the plan.

After the plan had been in effect a year and a half, it became possible for the company to provide for an earlier accumulation of the reserve required for service prior to the installation of the plan than was possible when the plan was adopted. Accordingly, as of July 1, 1934, the directors authorized a contribution of \$500,000 in a lump sum, in addition to the payments already made (which at that time had a value of about \$306,000) and an increase in the monthly contributions to \$30,000.

These substantial contributions made it possible to negotiate a new contract

with the insurance company, which would change the plan of purchasing annuities from the old one which provided for the purchase of them at retirement age out of the reserves which had been accumulated, to the plan which provides for the purchase of annuities as fast as money is available. This in substance means that the insurance company controls, in accordance with the pension contract, the reserves as fast as they are built up, and is a much more satisfactory arrangement. Under this plan the retirement annuities for all employees past retirement age will be purchased in full, and a substantial portion of the retirement annuity for those employees under retirement age, with 15 years or more of service will also be purchased. It is expected that all reserves required for pensions based on service prior to the installation of the plan will be accumulated by 1942.

Under the new plan the method of employee contributions was also changed from a flat 5% of pay to a fixed monthly rate, with a corresponding change in the annuity from the flat 2% of pay to a fixed monthly rate. These changes save considerable time and labor, not only in our pay roll department, but also in keeping the insurance company records, and make a difference of not more than 25¢ per month in the contributions made by any employee. Over a period of years the contributions will average 5% and the corresponding benefit will average 2% of pay.

The plan as revised was unanimously approved by the employees who had subscribed originally. About 98% of the eligible employees are now subscribers.

The plan is administered by the Retirement Committee composed of President Herman Russell, Vice-Presidents Jas. P. Haftenkamp and E. C. Scobell; F. W. Fisher and T. H. Yawger. Mr. Russell is chairman, and Mr. Scobell, secretary. The writer handles the detailed work of the committee.

The history of the cases which have presented themselves for action has been one of uniform pleasure and appreciation on the part of these employees. The Retirement Committee has retired those employees whose physical condition has been such as to

require such action, and has retained on the job those employees who desired to continue to work after retirement age and were qualified to do so.

It has been a source of wonder and enlightenment to the writer to see the efforts, on the part of the Retirement Committee, to secure for the employees of the company, every possible benefit, and to realize the consideration and esteem accorded every employee by the management in its dealings with them.

Up to the present time one woman and twenty-one men have retired under the plan, of whom three have died.

The retirement security is of course the major appeal of the plan. However, every dollar of employee contribution, with interest compounded, is returned in case of termination or death. Better to be chosen in case of termination, however, is the provision whereby the employee contributions can be left with the Insurance Company to purchase for him a personal annuity. As shown by President Russell's letter quoted in the opening paragraphs of this article, the status of employees as pensioners will not be affected by the Federal Social Security Law recently enacted.

Words of Wisdom

From an address by
Past President Arthur Hewitt,
June 10, 1915.

With broader view which is now being taken by thinking men, an industry like ours is not a channel down which a few individuals may float without effort in a life of luxury and ease. The large powers and privileges with which we are endowed rightly contemplate a complete recognition of an honorable opportunity for useful service. Money has its more or less fixed value, the laborer is worthy of his hire; but the important thing, after all, is the character of the service we are rendering and its adequacy for the needs of our communities. This is high ground, but there are many evidences of the operation of very natural laws which will compel us to still greater effort. Never before in connection with the gas industry has there been such a demand for the exceptional, the resourceful, the man who can think and who can plan, who can devise new and original ways of doing things, the man who can handle the situation and solve problems through his resourcefulness.

The Natural Gas Sales Outlook



C. E. Bennett

THROUGHOUT our entire industry much attention is being given to sales. There is every evidence that sales now constitute the primary problem in our business.

C. E. Bennett
Commercial Section
of the American Gas Association concentrates its efforts on sales and merchandising activities and is conducted for the benefit of the member companies. Its object is to promote those sales activities desired by the members and to gather and furnish, from time to time, any information that will be helpful in this particular branch of the industry.

The natural gas companies are well represented in the Commercial Section. In the past they have contributed a great deal and can be of material assistance to the Section in the future. As chairman of the Section for this year, I wish to express my appreciation for the generous manner in which the natural gas men responded to the call for service on various committees and the willingness with which they offered their time and experience. It is most gratifying and encouraging.

Reasons for Optimism

There are many reasons for an optimistic sales outlook for this year and the immediate future. We have been and always will be in direct competition for the customer's dollar which, from the appliance sales point of view, places us in direct competition with many merchandising activities. With proper sales effort we should obtain our share of the customer's purchases and it is encouraging to note that during the past year there has been a decided trend toward increased spending. Certain trends in our own business are indicative of better and improving conditions. The statistical review of the gas industry for 1935, released last

Presented at the Eastern Natural Gas Regional Sales Conference, Pittsburgh, Pa., February 6, 1936.

By C. E. BENNETT

Chairman, Commercial Section

month at American Gas Association headquarters, discloses these encouraging facts. They are particularly interesting to the natural gas industry because of the downward trends that have been so noticeable during the past few years.

The natural gas industry closed the year with the largest number of consumers ever carried on its lines, 6,029,000, an increase of more than 3% over 1934. The volume of natural gas sales for 1935 increased 9.3%. Please note that this increase did not occur entirely from the sale of industrial and commercial gas. The domestic use of natural gas, including domestic heating, showed an increase of 6.2% over 1934. The gross revenues from the sale of natural gas were up 7.8%.

Domestic Sales Advance

In the sale of domestic appliances which we all recognize is of vital importance in holding present load and adding new, we find that 30% more ranges were sold in 1935 than in 1934. The sale of gas refrigerators increased 56%. Accurate figures on the sale of water heaters are not available but the best estimates indicate the sale of more than 250,000 automatic gas water heaters, a substantial increase over 1934. The sales of house heating equipment also showed marked improvement and were largely responsible for the 6.2% increase in natural gas domestic sales. Industrial sales throughout the entire natural gas industry have shown a very decided trend upward. In some areas the increase over 1934 has amounted to more than 24%.

These statistics for 1935 are decidedly encouraging and I think without question indicate a very definite trend of further improvement this year and in the years to follow. However the gas industry cannot hope to stand idly by and expect this trend to continue. Further and continued improvement will require the most modern selling methods. Our entire industry must be imbued with the necessity of sales effort. Our selling programs are

extremely important and must include adequate advertising, sufficient man power, and those principles that will convincingly and comprehensively present the true value and superiority of our service.

The realization of this responsibility and obligation is becoming more apparent every day. Articles in our trade papers by leading executives continually emphasize the necessity of selling our service.

I quote from a statement of L. B. Denning, president of the American Gas Association, and one of the leading natural gas executives in the industry:

"The problem of the gas business is sales. So pressing is this problem and so great will be the rewards following its successful solution that every man and woman employee should give it continuous attention. The time is here—now—when methods must be devised to get our product and appliances used more universally. The situation calls for the prosecution of bold aggressive plans of action—the exercise of enlightened leadership, broad-visioned cooperation of the kind that can both give and take, and an industry-wide determination to concentrate our energies on new business."

Competitive Fuels Improve

This problem is quite different today than it was a number of years ago. Our competition from all sources is much keener and more modern. For example: some years ago our competition consisted mostly of antiquated and inefficient coal burning equipment. To-day our service must be compared with highly developed and very efficient coal burning apparatus, requiring very little attention and almost as automatic as gas-fired equipment. Efficient oil burning appliances have also been developed which can satisfactorily do a space heating or water heating job.

Electric competition, while not considered so serious in the natural gas territory, nevertheless is becoming a real factor and can not be overlooked. It may surprise you to know that the electric range sales saturation in some

natural gas territories is as high as 24%. Cost of operation is not always the determining factor in the sale of cooking equipment.

This decided change in the nature of competitive fuels necessitates improvement in the design and efficiency of our own gas burning appliances and also the re-design of rate structures to meet the situation.

A great deal has already been accomplished along these lines. Certain research work in connection with the design and efficiency of domestic appliances has developed some very startling information which unquestionably will lead to more efficient and improved equipment.

The adoption of promotional type rates is being given more and more attention by the industry. This is probably one of our most difficult problems in view of the present political and regulatory activities, but it is of such vital importance that there must be no let up in our efforts towards better and more competitive rate design.

More Gas Salesmen Needed

It is my opinion that the number of salesmen now employed by the gas industry in the sale of its product and the appliances through which it is utilized, is very inadequate.

From the most reliable information that could be obtained, the gas industry, and particularly the natural gas industry, has on the average, not more than one salesman for every three thousand customers. Let us compare this with the number of salesmen our electric friends employ. As you all know, every department store, every electric dealer, the five and ten cent stores, and many other merchants, sell electric appliances of all kinds, and have been very profitable outlets for the electric industry. If we take all of these into consideration, together with the salesmen employed by the electric utilities, a conservative estimate of the number of salesmen employed in selling electric consuming devices will be one salesman for every four hundred consumers. This is almost an eight to one ratio. If we had eight times as many salesmen constantly contacting our customers, encouraging them to use our service and telling the advan-

tages of its use through efficient automatic and modern equipment, we certainly could do a marvelous job. Your reaction to this thought will probably be that it would be impossible in our industry. I realize that the development of such a sales army as now available to the electric industry, will require time, effort and the expenditure of money, but it certainly has paid good dividends for our sister utility.

With proper effort and the inauguration of adequate cooperative methods, there are a great many dealers that could be utilized in the sale of our equipment, and in my opinion dealer cooperation can be of enormous benefit in our sales efforts.

Advertising Important

The necessity for adequate and attractive advertising which will constantly place before the public the economies and modernity of gas service is of vital importance if the up trend in our business is to continue. Advertising requirements are to a large extent competitive. Here again, competition for the customer's dollar must be given consideration and so long as advertising plays such an important part in the sales and disposition of equipment to the ultimate customer, we cannot hope to derive our share of the business unless we properly advertise our service and merchandise.

The amounts expended for advertising by the natural gas industry are relatively small. Statistics in this connection prepared by the American Gas Association indicate that the expenditures for publicity and advertising amount to approximately 40¢ per customer per year, or about 6/10 of 1% of the annual revenue from gas sales.

In order to meet the present competitive advertising situation our advertising must compare favorably with that of others and properly portray the story we have to tell. This, in my judgment, will require a change in the general appearance and appeal of some of the advertisements now being used by the industry. The true test of any copy is its ability to sell the product advertised. We cannot afford to let this important element of our sales programs become obsolete. I believe in the last few years local advertising has greatly improved and

with beneficial results but if we analyze other advertising, that appears almost daily in the local newspapers, on bill boards, and through the mails, we cannot help but be impressed with its direct relationship, and tie-up with so-called national advertising.

Several attempts have been made to interest the gas industry as a whole in some form of national advertising. These suggestions have not been received enthusiastically. If we are to judge its value from its use, which must be a measure of the benefits attained, there can be little doubt as to its merit. I do not believe that it will be possible to develop adequate customer acceptance of the true value and economy of gas service until our story is nationally told in sufficient volume and repeated often enough to convince the public of the facts.

This method of advertising has been successful in selling many other lines of merchandise. If our problem today is one of sales and merchandising, certainly it can be equally successful for the gas industry. However, it is not a job for one company or even a small group of companies. The benefits to be derived will accrue to the industry as a whole and therefore any national advertising program should be supported by the entire industry.

I would like to urge every company to seriously consider this program and join in this outstanding cooperative undertaking.

Manufacturers Cooperating

We can also get encouragement in the sales outlook from the interest being taken by the manufacturers of gas burning appliances. The necessity for cooperation between the manufacturers and the utilities cannot be overemphasized.

This year the Commercial Section is sponsoring three National sales contests—refrigeration, range, and water heating. The refrigerator contests have been successfully conducted for several years; the range contest was initiated last year with very satisfactory results and the water heating contest has been added this year in the hope that it will result in a greater stimulation of the use of gas for water heating.

The manufacturers are wholeheartedly supporting these contests. As

evidence of their cooperation, Mr. Rasch, president of the Association of Gas Appliance and Equipment Manufacturers, in a recent article in the *Gas Age-Record* states—

"In the ever widening and increasing national market for fuel, the manufacturers of gas appliances and equipment stand ready to exert their every effort and apply their resources so that gas will be preferred for use in home and industry."

Natural Gas Expansion

There is one outlook for the future of the natural gas industry which must not be overlooked—the introduction of natural gas into new territories. During the last few years under the most adverse economic and business conditions, natural gas has been made available to many communities, some of which had no gas service and others changing from manufactured to natural or mixed gas. Under improving conditions, this expansion is bound to increase and the economies in the use of natural gas will demand its introduction into new and enlarged territories.

The outlook for the gas industry can be almost as optimistic as we care

to make it. Here are a few of the reasons for this statement.

1. Statistics for 1935 show a definite up trend and indicate that the long looked for turning point has been reached.

2. Almost unlimited markets for the use of our product are just waiting to be sold, *But They Must Be Sold*.

3. The industry is more sales conscious to-day than ever before.

4. Equipment with which to demonstrate the superiority of our service is modern, efficient and constantly being improved.

5. More and better advertising is being strongly advocated.

6. Cooperative selling activities are receiving general support.

7. Leading executives of the industry are urging and demanding that more attention be given the sales problem.

In my opinion the present outlook for the gas industry is very encouraging. Not so much from the standpoint of the potential uses for our service through new appliances, or even the increased use of present equipment. There have always been plenty of outlets for our service but I take encouragement in the decided trend toward

a fuller realization by the industry of the necessity for sales efforts and the need for more adequate and up-to-date selling methods.

There is strength in cooperation. The need of a coordinated sales effort by the gas industry is paramount if our service is to hold its place as a modern fuel.

The natural gas sales outlook is full of opportunity. The real outlook depends upon what we will make of these opportunities.

Consumer's Deposit Questioned

THREE is a serious question about the wisdom of requiring a deposit in advance to guarantee the payment of domestic gas bills in the opinion of F. S. Wade, president and general manager, Southern Counties Gas Company, Los Angeles, Calif. "Preliminary investigation," Mr. Wade states "of the cost of handling consumers' deposits indicates that the increased loss, which might be expected if such deposits were waived from domestic consumers, would be only slightly in excess of the cost of this whole deposit business. If it were found practicable to waive the requirements of a deposit from domestic consumers, the gain in public esteem would be great," he concluded.

And Then Four Years Later Along Comes



Currently advertised as "a range that expresses an utterly new conception of style and beauty," the new electric range shown on the right bears a striking resemblance to the gas range on the left which was first introduced in 1932. Imitation is said to be the sincerest form of flattery

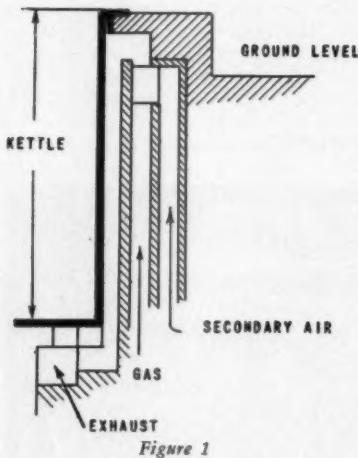
Galvanizing with Gas in France

Editor's Note. Mr. Bourcier's interesting comment on the difference in operation between producer gas and city gas parallels American experience. The effect of firing arrangements on pot life is also very interesting.

CONTACT with the American Gas Association as far back as May, 1931, when the Association supplied some interesting literature on the subject of American galvanizing practice prompted me to make occasional notes on the aspects of competitive fuels which I eventually hoped to transmit to the Association in return for the courtesies they extended. Opportunity affords time for carrying this out in a concrete manner.

Destruction of Pots

From 1923 to 1927 two kettles, one of 17,500 pounds and the other of 27,500 pounds were fired by producer



gas. The gas analysis was as follows:

CO ₂	7.3%
O ₂	0.3%
CO	25.9%
H ₂	7.5%
CH ₄	0.3%
N ₂	58.7%

with a gross heating value of 111 B.t.u. per cubic foot. It was used hot at a temperature of 1550° F.

The gas was mixed with secondary air and fired as usual in a combustion chamber under natural draft. The

By P. G. BOURCIER, Ing.A.M.

Consultant in Galvanizing, Arras
(P. de C.), France

flames first touched the upper part of the pot over a short breeching, and then down along the side of the pot to a rectangular duct running under the kettle to the chimney. This firing

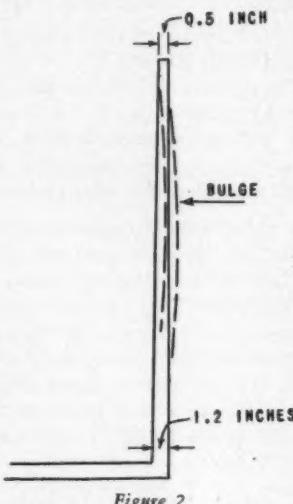


Figure 2

arrangement is shown in Figure 1. The temperature of the exit gases was 840° F.

From the point of view of thermal efficiency the results are not particularly interesting, but it is with this arrangement that a kettle lasted 23 months, this being a record for our operations. Another kettle with the

same heating arrangement lasted 15 months. In each case the kettles were on continuous service, 24 hours a day.

Both kettles were eroded in a similar manner, tapering gradually from top to bottom. Originally designed with a thickness of 1.18 inches, the top section had been reduced to a thickness of 0.47 inch just prior to failure. The hydrostatic pressure of the molten zinc had caused both sides to bulge a distance of 0.4 inch out of true. Figure 2 illustrates the condition of the pots. This is curious, inasmuch as the mean temperature in the combustion space along the kettle walls was of the order of 1195° F. ($\frac{1550 + 840}{2}$) and was subject to no sudden temperature changes. The long life of the pots was attributed largely to these temperature conditions.

Thermal Efficiency

But on the other hand, the practical efficiency of the plant was very low, that is the ratio of the total B.t.u. necessary to heat the total tonnage up to 840° F. compared to the total heat represented by the input of coal into the gas generator. This over-all picture showed the thermal efficiency to be 6.5%.

Even though the temperature should have been practically constant, it was very difficult to regulate. The equipment brickwork was too big a heat flywheel.

The variety of work processed in

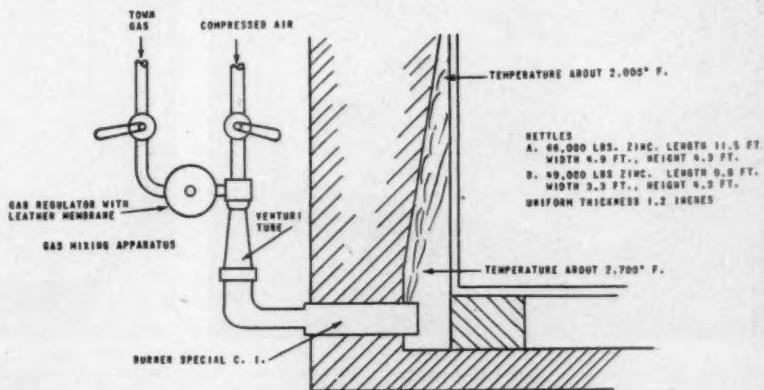


Figure 3



Figure 4

the kettle made it necessary to heat the spelter occasionally to 860°-880° F. and at other times to only 800°-820° F. However, it was very easy to regulate the temperature properly during the week-end or the holiday periods.

Substitution of Manufactured Gas

These results suggested the use of manufactured gas and the whole heating system was changed over. The producer gas was replaced by manufactured gas having a net heating value of 445 B.t.u. per cubic foot. A low-pressure proportional mixing system was adopted and the firing arrangement changed as shown in Figure 3. The flame temperature was considerably higher now, being about 2800° at the base of the flame and possibly 2000° F. at the tip.

This firing system proved excellent from both points of view, that is ease of regulating the zinc temperature and better thermal efficiency. In fact, the temperatures could readily be controlled within 20 to 35 degrees and the thermal efficiency went up to 30 to 35

per cent when working continuously on the same class of work.

There is no doubt that manufactured gas is the best medium for heating galvanizing kettles wherever it can be obtained at reasonable prices. In the north of France, manufactured gas was available from collieries at a price slightly under 31 cents per M cu.ft. (computed on the gold basis, 1 French franc = 4 cents).

One of the kettles was used mainly for galvanizing stay bolts for rails and for iron supports for telephone and telegraph wires. The output was between 15 and 16 metric tons a day, 3 shifts of 8 hours. The gas consumption varied from 830 to 960 cubic feet per hour.

For the week-end periods a small device was added which permitted the gas valve to stay open even when the air was shut off, thereby securing a small amount of heat which was sufficient to keep the zinc molten.

The railway stay bolts were centrifuged in a very simple and efficient machine invented by the author.

Life of the Kettles

The kettles mentioned above lasted about 15 months under the arrangement used. One of them presented when damaged such peculiarities that a picture was made, shown in Figure 4. This is a section cut out from top to bottom of the side wall of the pot. At approximately the level where the tip of the flame struck the outside of the pot, the steel (1.18 inches thick originally) developed large, egg-shaped craters, the bottoms of which were no more than 0.08 inch thick. The flame temperature on the outside may have been 2000° F. The leak occurred through one of these craters, without too much damage to the heating equipment. Three days later the kettle was replaced and in working order.

[The author has written the words "Lead level" on the right-hand margin of the picture. This refers to the practice followed by having a layer of lead in the bottom of the galvanizing kettle, the object being to float the dross at this point, rather than to have it settle in the bottom where it would cake on and interfere with heat transfer. —Ed.]

Another Damaged Kettle

In Figure 5 there is shown a small galvanizing kettle, underfired with at-

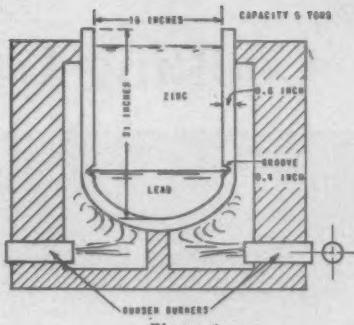


Figure 5

mospheric bunsen type burners. In this kettle, as in the case of the ones previously mentioned, the use of the lead bath below is shown. However, a very curious damage occurs in this type of kettle. On a certain occasion the zinc had been allowed to cool down and the foreman overheated the entire furnace. A leak soon occurred and when the pot was emptied, a triangular groove was found all around the pot just at the level of the junction of the lead and the zinc.

[The more severe corrosion at the junction level is to be expected because this is the hottest section where molten zinc and iron pot are in contact. However, it would not be expected that the notch or groove should take the form and shape that it has, but rather that there should be decided corrosion and wear beginning at this point. —Ed.]

Dr. Huff Appointed Chief Chemist, U. S. Explosives Division

DR. WILBERT J. HUFF, of the engineering faculty, Johns Hopkins University, has been appointed chief chemist of the Explosives Division of the Bureau of Mines, Department of the Interior.

Dr. Huff was a member of this division in charge of chemical work at the Pittsburgh Station after the World War. There he carried on a number of researches, one of which, on the corrosion of firearms, led to the widespread introduction and use of present-day non-corrosive ammunition. He is a graduate of Yale College, with general honors, and special honors in chemistry, and was Loomis Fellow in Yale University, from which he received the degree of Doctor of Philosophy in 1917.

In 1924, Dr. Huff initiated the work of the Department of Gas Engineering, Johns Hopkins University, which he has headed since that time, and has served as a consultant on chemical and engineering problems in the gas and fuel industries. He has been active in the work of the American Chemical Society, the American Gas Association, and the American Institute of Chemical Engineers.

Cooking Contest Proves Speed of Gas



Scene during cooking contest

THEY'RE off. . . . They're placing the pans in their proper places. . . . Mrs. Jones is filling her coffee maker with water. . . . Mrs. Smith is closely following her. . . . They're neck and neck. . . . both are unwrapping their bacon. . . . listen to the speed of those eggs being cracked and placed in the skillet. . . . Mrs. Smith is doing everything at once, mixing eggs with her left hand, turning bacon with her right, closing the oven with her knee, watching the coffee and generally speaking, doing everything except sweeping the floor."

Something like the above might have been heard over the radio during the breakfast cooking contest sponsored by the Nashville, Knoxville and Chattanooga gas companies in January to find the fastest cook in the South and to establish definitely in the minds of the people the speed and superiority of gas cooking.

The idea originated from an advertising theme "Breakfast in Six Minutes" which has been used recently in our local advertising. Work on the plans for the Tri-Cities Breakfast Cooking Contest started about December 1. Complete arrangements and details were worked out by members of the Knoxville, Chattanooga and Nashville gas companies.

It was decided that each property would give a \$125 range to the winner in each of the three cities, and a

By WILLIAM E. LEVERETTE

Commercial Manager, Nashville Gas and Heating Company

\$100 cash prize to the winner of the state championship. The details were virtually the same in all towns with slight variations to meet local operating conditions. This included selecting whatever range was to be featured in each town.

All range burners were set at a definite B.t.u. rating with necessary governors and other equipment.

The breakfast selected for the contest was one which had been previously used in tests of different competitive equipment and which is generally accepted as the average American

morning meal. It consisted of six scrambled eggs, six pieces of toast, six strips of bacon and four cups of coffee. It was estimated that the average American family is 4.3 people, and would consume approximately that much food.

The bacon had to be crisp, the eggs done, the coffee properly brewed in a glass coffee maker and the bread toasted to a predetermined brownness. The water for the coffee was taken at about average room temperature in this climate, a conservative estimate of which is 75°, due to considerable hot weather.

The contest itself was conducted as follows: The women qualified in groups of five or more, and the one finishing the breakfast first was declared the qualifying entrant from her group. There were 16 to qualify and these were placed in regular brackets, one against one, the winner of each going into the next bracket. In this way it was handled much the same as any competitive sport. The winner received a \$125 gas range plus an entry place in the state finals. The qualifying time ranged from 4 minutes, 41 seconds, to 9 minutes, 12 seconds. After the regular matches were started, and the women became more accustomed to the range, the time did not exceed six minutes in any case.

The services of the Parent-Teacher's Association were secured as judges, and as a result practically no bad



Advertising "breakfast in 6 minutes"



"Mine's a Breakfast in 6 minutes Modern Gas Range too, Murrer"

Follow-up advertisement after breakfast cooking contest, Nashville Gas and Heating Company

feeling was experienced among the contestants or toward the gas company. Stop watches were used for timing.

The finals of the tri-cities contest and the state contest were broadcast over a local radio station, and it has been found that a very appreciative and interested audience listened to it.

We started advertising the contest with teaser ads. These were followed with the announcement ad, rules of the contest, etc., and daily ads were run during the contest showing the entrants and the time recorded by the winning contestants. Newspapers ran photographs and news stories in addition to our advertising.

The contest definitely proved the speed of gas cooking and substantiated our advertising theme of "Breakfast in Six Minutes." We know it has created more talk and enthusiasm than any cooking school or other similar function which we have sponsored. In our opinion, the value of this contest

to a company under our competitive conditions is unquestionable.

There were several reasons for selecting the idea and theme of "Breakfast in Six Minutes" from which arose the cooking contest:

First, gas, without any question, is the one fuel that from a perfectly cold start, can cook this meal in the allotted six minutes.

Second, we had been talking speed in our advertising and sales promotion, but had not applied it to a particular function.

Third, breakfast is a meal that in most homes is a very hurried one, and the housewife's memory is utilized for actual comparison with a daily domestic performance.

After selecting the slogan, we began to make speed tests to back up our statements and for comparison of gas with other fuels. Tests were made using several different modern gas ranges; electric ranges of the very lat-

est type with the so-called high speed units and other equipment; kerosene stoves of better manufacture; coal and wood stoves.

In the first tests on gas ranges, preparing the same breakfast which was later used in the cooking contest, our time ranged from 5 minutes, 35 seconds, to 6 minutes, 40 seconds; this, of course, with an experienced economist. It took approximately twice as long for the bacon, eggs and toast on the electric range as it did on the gas, and the coffee very much longer where the glass coffee maker was used. The coffee time for the electric test can be speeded up with an electric percolator. It is known that 10 minutes is about the fastest time for properly percolating coffee. The coffee brewer with an electric unit required 12 minutes, 40 seconds.

The time for the coal and kerosene ranges was even slower than the elec-

(Continued on page 112)

Sir Francis Goodenough To Retire As Head of British Gas Association

ANNOUNCEMENT of the impending retirement of Sir Francis Goodenough as executive chairman of the British Commercial Gas Association after 25 years of service has been received with regret not only in England but also in this country where he is widely known and admired. Sir Francis has chosen the Silver Jubilee of the British Commercial Gas Association as the year for his retirement, having acted as its head for the whole 25 years of its existence. He intends to relinquish the work and responsibilities of that office on December 31.

Retirement of Sir Francis from the association follows his retirement on June 30, 1931, as controller of the gas sales department of The Gas Light and Coke Company, London, after forty-three years' official connection with that company. Sir Francis was an honored guest and one of the principal speakers at the A. G. A. convention in Atlantic City in October, 1931, at which time he made numerous friends in the American gas industry. At that time he was presented to President Hoover at the White House, Washington, D. C., accompanied by Alexander Forward, managing director of the American Gas Association.

Presented Paige to Prince of Wales

Sir Francis' work was singled out in 1932 by the then Prince of Wales who commended his selection as chairman of an international committee on distribution at the International Congress on Commercial Education, in London, July 29, 1932. It was Sir Francis who presented Clifford E. Paige, then president of the A. G. A., to the Prince of Wales in 1931, at which time His Royal Highness evidenced keen interest in the gas industry in this country.

In expressing regret at his impending retirement the British trade press was high in its praise of Sir Francis' achievements. The *Gas World*, London, January 25 issue, says: "It will be difficult to visualize the British

Commercial Gas Association without Sir Francis as its executive chairman, while the industry as a whole will be much the poorer by the retirement of one who has been an outstanding personality and driving force in the last quarter century."

The *Gas Journal*, London, January 22, says, in part:

"It will perhaps be more appropriate to refer in detail to the untiring service which Sir Francis has rendered when his retirement becomes an

accomplished fact. Nevertheless, it will be difficult to refrain, even on the occasion of this preliminary announcement, from an expression of sincere regret. The British Commercial Gas Association—the first cooperative propaganda effort by any industry in this country—long since won the admiration of those in other spheres of commerce who have not succeeded in pulling together so smoothly; its successes have been the envy of those whose imitative efforts



Photograph taken in 1931 when Mr. Paige was presented to the Prince of Wales. Left to right, Sir Francis Goodenough, Clifford E. Paige, and Major Henderson-Scott

have brought them less gratifying results. . . .

"Perhaps not the least valuable feature of Sir Francis' work for the gas industry has been the fact that, in an extraordinarily energetic career, his activities have extended far beyond the confined circle of the industry's own affairs. He is, in fact, what is sometimes known as a "public man," as witness his chairmanship of the Government Committee on Education for Salesmanship, and more recently membership of the Post Office Advisory Council appointed early in 1933 by the Postmaster-General. These are two only from among a host of honorary appointments, of what might be called a national character, which Sir Francis has held, and the advantage to any industry of having one of its leaders honoured in this way cannot be gainsaid. But apart from this, it has brought to the gas industry—which has always had a tendency towards a rather parochial outlook—the benefit of a knowledge of thought and trend from a wider world."

Extend Sympathy on King's Death

IN a letter addressed to Colonel William M. Carr, president of The Institution of Gas Engineers, London, England, L. B. Denning, president of the American Gas Association, expressed the deep sorrow of the gas industry in this country at the death of His Majesty, King George V. The King was held in the highest esteem not only for his qualities as a sovereign, but for his interest and encouragement to the gas industry.

The following telegram was also sent from Bermuda to Sir Francis Goodenough by Clifford E. Paige, a past president of the American Gas Association:

"Have just attended the funeral services here for King George. As in America people overcome with sorrow at England's loss. Your country fortunate to have so able successor as His Majesty, King Edward. Thanks to you, in 1931 I had the unusual opportunity to observe his remarkable qualities. The regard in which he is held by all people assures stability of Government when such stability is paramount."

The King's private secretary sent the following communication to Sir Francis Goodenough in reference to Mr. Paige's message:

"I have shown Mr. Paige's cablegram to the King. Perhaps when you are next writing him you will say how much His Majesty appreciated its terms."

Washington and Georgetown Companies Adopt Sliding Scale Rate Plan

THE "sliding scale arrangement" proposed by Washington Gas Light Company and The Georgetown Gaslight Company, and approved by the Public Utilities Commission of the District of Columbia, which became effective December 16, 1935, terminated several years of valuation and rate proceedings.

At the same time an entirely new and generally lower schedule of rates also became effective. These new rates were estimated to save gas consumers in the District of Columbia \$850,000 per year when compared with the rates previously on file, and \$305,000 per year when compared with the temporary rates in effect since August 1, 1932.

This sliding scale plan is in effect similar in principle to that under which the Potomac Electric Power Company has been operating for some years and which has come to be commonly known as the "Washington Plan." Rates are to be reduced annually if rate of return on the "Rate Base" plus "Working Capital" increases over 6½% or to be increased if it decreases under 6½% in accordance with a definite scale incorporated in the plan.

Rate Base

The initial Rate Base is fixed at \$21,000,000 as of June 30, 1935, but does not include Working Capital, which latter as of said date was taken to be \$750,000.

Retirement Reserve

The Retirement Reserve appropriation is increased and is now to be accrued at 1¾% yearly of the Rate Base until such time as the Retirement Reserve equals 10% of the Rate Base. When this occurs, the percentage is decreased to 1¼% of the Rate Base.

Allocation of Property Income and Expenses

The plan provides for the allocation of property used for gas service within the District of Columbia as distinct from the property used to serve territory outside the District of Columbia, and the adjustment of revenues and operating expenses to reflect income from and the expense of rendering that service to consumers in the District of Columbia only.

Determination of Rate Changes

If earnings after deducting adjusted operating expenses, and accruals for Retirement Reserve, Uncollectible Bills and Taxes exceed 6½% on the Rate Base in any "Test Year" there is to be applied to rate reductions during the following "Rate Year" an amount not less than 50% of such excess and larger portions as the rate of return earned rises.

If rate of return falls between 6 and

6½% for but one "Test Year" no increase in rates is to be allowed in the succeeding "Rate Year," but if for two consecutive "Test Years" it falls within these limits, then the full amount of the deficiency the second year is to be applied to rate increases the following "Rate Year"; if rate of return is 6% or less but more than 5½%, then but ¾ of the similar deficiency is to be applied; if 5½% or less, then 5/6 of the deficiency is available for rate increases.

"Test Years" and "Rate Years" are defined as the twelve months' periods ending June 30 and August 31 each year, respectively.

Constitutional Rights Reserved

The constitutional rights of the parties interested as well as their respective rights under the Act establishing the Public Utilities Commission, as amended, are expressly preserved by the plan.

Termination of Plan

Either the commission or the companies may terminate the plan upon ninety days' notice.

New Rate Schedules

(New schedules of rates as filed by the companies and approved by the commission became effective December 16, 1935. Through the kindly cooperation of Marcy L. Sperry, president of the companies, the Association is enabled to furnish a comparison of the new and old rates to those who may be interested.)

An Ounce of Prevention

THE Philadelphia Gas Works Company is always interested in the size of its customers' gas bills. It desires that the bills be reasonable and have a fair relation to the demand of the appliances in use. As an evidence of this, there is a force of review clerks at Montgomery Station, among whose duties it is to scan customers' bills before they are submitted to see whether they are reasonable or in line with other month's bills.

Whenever a bill varies from what is a reasonable normal amount, the bill and a transcript of the account is given to the Customers' Representative Division. A representative then calls at the premises to make an investigation and endeavors to locate the cause of any increase or decrease of the gas consumption. If he discovers the bill is incorrect, he returns the bill for correction. If the bill is apparently correct, he explains conditions to the customer and presents the bill.

We find that this procedure creates good public relations and convinces the customer we have their interests at heart.

—*The P. G. W. News, January, 1936.*

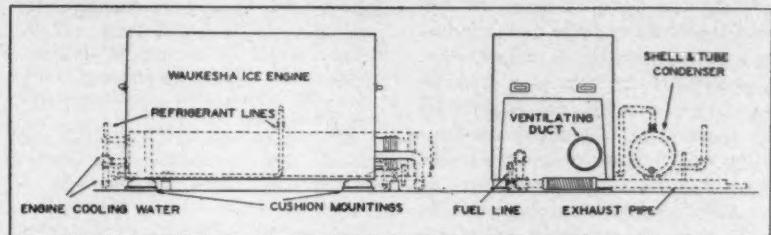
New Gas Unit Enters Summer Air Conditioning Field

By EUGENE D. MILENER

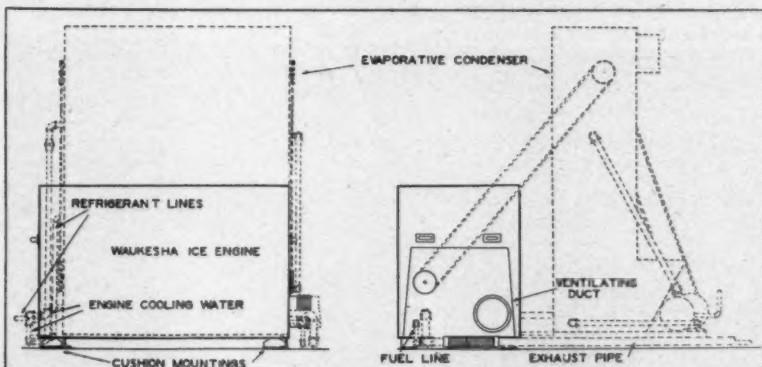
Secretary, Committee on Industrial Gas Research

A LONG step forward, one that will place gas in an enviable position for summer air conditioning, was taken when the Waukesha Motor Co. of Waukesha, Wis., announced early in February a gas-driven ice engine for air conditioning and commercial refrigeration purposes.

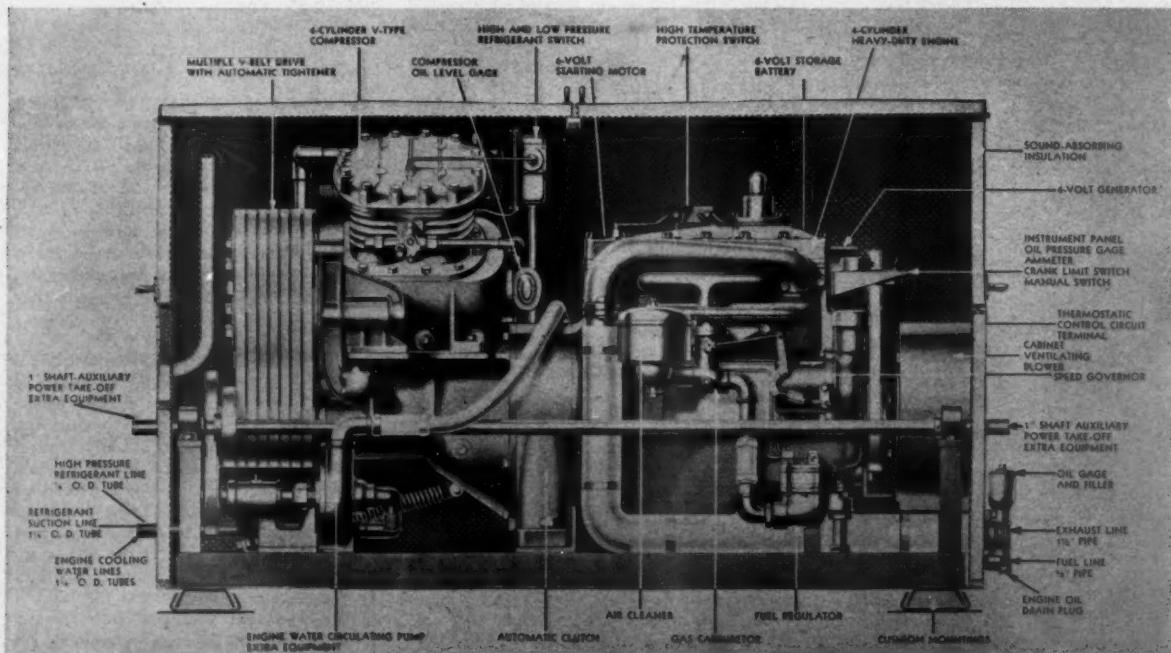
Many authorities believe that the gas industry went ahead of other industries from the technical standpoint in summer air conditioning when it developed and made available direct dehumidifying methods, thus for the first time separating the all-important functions of drying and cooling. Thoroughly satisfactory air conditioning is the rule with gas dehydration where an ample cooling water supply is available. But in many instances this water supply cannot be found. Furthermore there are some situations where cooling alone is needed. Also



Suggested installation where suitable water supply is available



Suggested installation where water supply is not suitable or its cost is excessive. Condenser power requirements either independent or from the gas-operated ice engine



Waukesha gas-operated ice engine

the big field of commercial refrigeration could not be touched with available equipment without an excessive amount of local engineering and in most cases the use of misfit equipment.

The Waukesha ice engine seems to meet these various situations. It offers the gas industry for the first time a refrigeration machine for heavy duty air conditioning and commercial refrigeration service that is engineered, manufactured, assembled, shipped and installed as a complete unit on the same basis that electric motor-driven units are installed.

This unit will be found suitable for furnishing the supplementary cooling when gas dehumidifiers are used. In this way the most advanced form of air conditioning is possible with gas carrying the whole load.

It is also suitable where local conditions make the installation of separate dehumidifying equipment unnecessary. In these cases conventional electric or Diesel-driven air conditioning is duplicated.

The third field for this new unit is for commercial refrigeration. The large refrigerator load is a particularly attractive one.

Compact Automatic Design

The Waukesha ice engine consists of an improved gas engine and a Freon or Methyl Chloride compressor built as a single unit. Both the engine and the compressor are four cylinder, the latter being of the "V" type. Operation is entirely automatic including starting and stopping, and the amount of refrigeration produced is automatically governed by the requirements. The entire assembly is encased in a compact cabinet 56" long, 27" wide and 35" high. The noise and vibration level is as low as that attained with any high-grade oil burner.

The unit is of 7 tons' capacity and can be used in connection with any of the standard air conditioning or refrigeration coils. An interesting feature is that this gas unit can be operated in connection with a tap water supply for condensing on the low-pressure side of the air conditioning or refrigeration system, or it can be connected to an evaporative type of condenser. An auxiliary power shaft can be provided with the unit for oper-

ating the evaporative condenser fans as well as for operating other fans used for running the air conditioning system. The unit is standard for either natural or manufactured gas.

The Committee on Industrial Gas Research has cooperated with the manufacturers during the period when this machine was being developed. Last summer field tests, which included railroad car cooling, using bottled gas, supplemented laboratory work and final designs were based on the performance of the field test units. The

economy of air conditioning and refrigerating by this gas method can be judged by the fact that a ton-hour of refrigeration is produced with approximately 14,000 B.t.u.

Nineteen hundred and thirty-six should be a big year for gas summer air conditioning, what with perfected dehumidifying apparatus being accepted by the trade, and now with compact factory-made gas power assemblies available to produce supplementary cooling or to carry the entire load.

Canadian Company Sets High Figure In Heating Jobs

EXCEEDING its own quota that was set for house heating installations when natural gas was first considered for the City of London, it is interesting to find that the City Gas Company of London, subsidiary of the Union Gas Company of Canada, Limited, has sold and connected more than one in eight house heating installations of the homes served. Notwithstanding the number of installations, the success of the City Gas Company's campaign was marked by the rapidity with which the installations of mains and the installation of these house heating units were sold and installed.

It was not until the late spring of 1935 that the City Gas Company received permission, by an overwhelming majority of voters, to bring natural gas to London, Ontario, to replace the manufactured gas with which the city had previously been supplied. On August 9, construction work was started. This entailed the laying of over eighty miles of pipe, sixty-five miles of it in and from the Dawn Field and the remainder within the city limits. In six weeks this construction was completed and everything was ready for the change-over late in September. The task of adjusting appliances in the 14,300 homes where gas was used was a tremendous one, but the change-over by specially schooling three hundred men for this work was completed without untoward difficulty within two weeks.

Meanwhile the sales department of the company had been concentrating its efforts on house heating installations. The quota was set at 250 house heating units. To increase sales, the advertising campaign featured the fact that these house heating units would be installed on a rental basis. The same plan has been used successfully the past four years in other properties of the Union Company. So great was the interest and so satisfied were the users, that by February 1, since natural gas was turned on, 2,027 installations have been made—

one house heating installation for every eight meters.

The final effect of the change-over to natural gas in the City of London cannot at this time be properly gauged; but an indication of what will result is shown by the large increase in sales since the change-over.

The company, in its construction work, gained considerable good will in the various municipalities affected, by using local labor, for the most part taken from those residents of the city and surrounding municipalities who were on relief.

Edwin H. Robnett Dies Suddenly

EDWIN H. ROBBNETT, an officer of the Public Service Corporation of New Jersey since 1921, died January 30 in Newark, N. J.

Mr. Robnett was campaign manager for Public Service, having been in charge of many of the stock selling campaigns of that corporation. He formerly served on the Customer Ownership Committee of the American Gas Association, which was in existence some years ago.

He was a native of Texas and the son of the Rev. John D. Robnett, founder of Howard Payne College in that state. Mr. Robnett was a graduate of that institution and of Tufts College. He also attended the A. E. F. University at Beaufort, France, having served as a major in the tank corps of the United States Army during the World War. After the war he was on Herbert Hoover's staff for administering relief in Europe.

He was president of the Newark Civic Clubs Council and had been active in the Community Chest, Red Cross and Boy Scout work in that city. Mr. Robnett was president of the Bond Club of New Jersey, and a national officer of the Reciprocity Club of America.

Nation-Wide Campaign To Promote Gas Refrigeration Opens in April

FOR the fourth consecutive year, the American Gas Association Refrigeration Committee will sponsor a nation-wide campaign for the selling of gas-operated household refrigerators which will last throughout April, May and June. This year's drive will be known as the "Leadership Campaign" with the gold-hilted "Sword of Merit" as its symbol. This follows precedents, the 1935 campaign having been known as the "Prosperity Cup" campaign, and the 1934 drive popularly known as the "Blue Vase" campaign, in which trophies were offered. The 1934 campaign was preceded by the "Ice Cube" contest in the summer and fall of 1933.

Because of the phenomenal growth in the public acceptance of gas refrigeration, a very large part of which is due to the promotion of sales of gas-operated refrigerators by many hundreds of gas utilities, along with the fact that the refrigeration industry as a whole regards 1936 even more of a refrigeration year than 1935, the committee has planned this year's campaign on a scale vastly more comprehensive than in previous years. Awards that will go to individual companies are larger than ever before, and the cash awards that will be distributed to the thousands of individual salesmen who will compete in the three-month drive will be about double those of last year in the "Prosperity Cup" contest.

Sword as Symbol

As in previous years, a symbol of successful salesmanship will loom large as a goal for those companies who come out ahead at the conclusion of the campaign. This year's symbol is the "Sword of Merit."

Eight swords are offered as trophies to the eight companies who make the highest records in their respective divisions, during the "Leadership Campaign."

The Refrigeration Committee chose a sword not as an implement of warfare, but as a badge of leadership. Al-

though it was once an implement of battle, today the sword is solely the "badge of honor and the mark of rank," the committee states. For contest winners the sword will be the mark of a leader.

The trophies will be modeled after genuine presentation dress swords. They are made of specially treated, highly tempered steel, elaborately engraved; the design being carried out in the gold panels of the scabbard. Heavy gold braid and tassel will be attached to the handsome gold hilt. The sword will be encased in a mahogany box to which a gold presentation plate containing the name of the winning company will be engraved.

Participation Mounts

In planning the 1936 gas refrigeration campaign, the Refrigeration Committee has taken into consideration the enthusiasm of executives of a large portion of the American gas companies in building up the gas load through the sale of automatic gas refrigerators. As evidence of the interest of the leaders of the industry in these gas refrigeration campaigns, the committee emphasizes the way in which the industry increased its participation from year to year in the campaigns sponsored by the American Gas Association.

In the 1933 campaign, under the chairmanship of Cyrus Barnes, of Boston, 3,000,000 meters were registered. In the 1934 contest, known as the "Go-Getter" or "Blue Vase" contest, under the leadership of Ronald A. Malony, then of Philadelphia, the number of meters was more than doubled to 7,000,000 meters. Last year, 2,000,000 more meters were added under the chairmanship of John J. Quinn of Boston. In last year's campaign, with a registration of 9,000,000 meters, hundreds of gas companies who had not participated in previous campaigns enlisted in the battle, and retail salesmen of gas companies received national cash awards for the first time.

A total of at least 10,000,000 meters is the registration objective of the 1936 contest. "The honor of leadership," states Chairman B. H. Gardner, "as well as a total of more than 1,000 awards, including \$24,320 in cash, should induce all companies to make this our greatest refrigeration campaign."

Awards to companies and to individual salesmen in the 1936 campaign are virtually double those offered last year in the "Prosperity Cup" campaign. More than one thousand cash awards are offered.

All of the cash awards to company winners have been raised considerably as will be seen by comparing the terms of this year's contest with those of last year.

Following the policy of last year's campaign, special attention has been given to rewarding the thousands of retail gas appliance salesmen on whose efforts the success of these campaigns depends. Consequently, \$12,320 will be distributed to the selling forces of gas companies in the "Sword of Merit" campaign.

Prize Awards

A total of \$7,200 comprising 720 awards will go to high retail salesmen during each of the months of the campaign's duration.

Awards totalling \$5,120 will go to retail salesmen making the highest records during the entire campaign.

Gold "medals of merit" will be presented to all salesmen who make the best showing during the campaign.

In addition to the eight "swords of leadership" to be granted to the eight companies standing highest in sales achievement during the entire campaign, sixty cash awards amounting to \$12,000 have been provided for the gas companies that are ahead in the contest.

The committee recommends that companies winning cash prizes arrange to distribute the money among sales managers, supervisors and others

who have aided in making the campaign successful.

Cash awards going to companies include liberal cash awards for "honorable mention" in most divisions.

In each case where a company receives the "Sword of Merit," such company also receives a large cash award.

Additional cash awards have also been provided for the companies in the first, second and third divisions that make the most installations per 10,000 meters.

In this year's campaign the competing companies will be divided into eight groups instead of seven. Two divisions will be composed of companies competing among themselves on the basis of percentage of increased

installations during the 1935 campaign. The first division will consist of seven metropolitan gas companies; the second division will be made up of six companies that made outstanding showings in Division B. of the 1935 campaign.

Six divisions will be made up of all remaining companies grouped according to the total number of domestic meters on their lines. These six divisions will compete on the basis of total installations during the present campaign.

The third division will comprise companies having over 40,000 meters; fourth division, 20,001 to 40,000; fifth division, 10,001 to 20,000; sixth division, 5,001 to 10,000; seventh di-

vision, 1,001 to 5,000, and eighth division, 1,000 meters or under.

The first division in the "Leadership Campaign" includes the Boston Consolidated Gas Company; Kings Appliance Corporation, Brooklyn, N. Y.; The Brooklyn Union Gas Company, Consolidated Gas Company of New York; The Philadelphia Gas Works Company; Washington (D. C.) Gas Light Company, and the Southern California Gas Company of Los Angeles. Grand awards for this division are: first, "Sword of Merit," plus \$600; second, \$500; third, \$300; fourth and fifth, \$200 each.

A special award of \$600 is open to a company in the first division that makes the greatest number of installations per 10,000 meters throughout the entire campaign. The winner of this special award automatically surrenders its position in the grand awards class to the next highest company, unless that position chances to be first place. That is, if a company gains the special award and the third award, it surrenders the third award to the company that earns the fourth award, advancing the position of all other companies.

First Division Prize

The "Sword of Merit" plus \$1,000 can be obtained as an award by any company in the first division that holds both the first position for attaining the greatest percentage of increases in installations, and the greatest number of installations per 10,000 meters.

The second division comprises the Providence (R. I.) Gas Company; Ohio Fuel Gas Company, Columbus; Minneapolis (Minn.) Gas Light Company; New Haven (Conn.) Gas Light Company; Portland (Ore.) Gas and Coke Company, and Brooklyn Borough Gas Company. These companies will compete on the percentage of increase in installations in last year's campaign.

Four grand awards will go to the foregoing companies as follows: first award, "Sword of Merit" and \$500; second, \$400; third, \$300; fourth \$200.

A special award of \$500 is offered to a second division company under the same conditions prevailing in the first division, already described.

As in the first division, the "Sword of Merit" plus \$800 can be earned by a company in the second division that



B. H. Gardner, chairman of the Refrigeration Committee, inspects the "Sword of Merit," symbol of leadership in the national sales contest

attains first place in percentage of increase in all installations and also first place in the 10,000 meters class.

In the third division, eight grand awards are open: first, "Sword of Merit" plus \$400; second, \$300; third, \$200; and \$100 each for the fourth, fifth, sixth, seventh and eighth places.

The special award for the third division is \$400.

The "Sword of Merit" plus \$700 is obtainable in this division under conditions already described.

Grand awards for each of the fourth, fifth and sixth divisions are: first award, "Sword of Merit" and \$400; second award, \$300; third award, \$200, and \$100 each for the five remaining companies.

For the seventh and eighth divisions, eight grand awards are also provided, the first award being the "Sword of Merit" and \$300; second, \$200; third, \$100, with \$50 each going to the remaining five company winners.

In all cases, the grand awards in each division beyond the third award carry the designation "honorable mention." In the campaigns hitherto, companies receiving "honorable mention" did not receive additional cash awards.

Individual Awards

Awards offered by the committee to individual salesmen are the same in all divisions, there being grand prizes for the nine men in each division who are ahead at the end of the campaign. The top men in each division will receive \$100, the awards grading down to \$20 for the ninth man. Additional awards of \$10 each will go to the ten men who make the next highest sales.

Monthly awards will also go to all salesmen participating in the contest. A total of 720 monthly awards is offered.

For the first time, home service departments of gas companies will participate in the awards under the following conditions: Fifty dollars in cash will go to the home service department of each company that wins the "Sword of Merit," or that wins first place on installations per 10,000 meters.

As in previous campaigns, the awards are based on installations of Electrolux refrigerators, the contest

having been planned by the committee in collaboration with the Electrolux Refrigerator Sales Division of Servel, Inc. In working out the details of the campaign, the committee had the assistance of H. S. Boyle, promotion manager of Servel, Inc., the aim of the committee having been to have the campaign tie in with the promotional and advertising program of the Electrolux company, the largest in its history.

Electrolux Praised

Regarding the Electrolux refrigerator, the committee's announcement states: "Electrolux for 1936 enables you to offer your customers a gas refrigerator that is even more eye-appealing and buy-appealing than the one which won such overwhelming acceptance last year. It's truly the finest gas refrigerator ever built!"

"It has all those famous operating advantages which already have won more than half a million friends for gas refrigeration . . . such things as no moving parts to wear, permanent silence, lasting efficiency, continued low operating cost.

"In beauty, too, Electrolux is years ahead. Its cabinet design—which American women themselves helped to create—remains the 'most beautiful of them all.' Besides, the interior of the new Electrolux has been simplified . . . organized . . . beautified. It's equipped with a wealth of new and improved conveniences . . . conveniences that will win the heart of any woman."

Urging the support of the campaign by all gas company members of the A. G. A., the announcement states: "The year 1936 can be a banner year for gas refrigeration if there are enough leaders in the gas industry to win our battle in the face of strong competitive selling. We have the product—an appliance that each year is winning wider and wider acceptance, an appliance that is superior on every important count to those offered in competition. We have the service—the most efficient, economical and dependable fuel in the world. Nineteen hundred thirty-six will prove our leadership."

"The 1936 A. G. A. Refrigeration Contest will prove leadership among gas companies. It will prove leader-

ship among the individual gas salesmen the country over. And so your committee feels that nothing could be more fitting as a theme for our 1936 A. G. A. Refrigeration Contest than this of—Leadership."

Members of the Refrigeration Committee and their companies, are as follows: B. H. Gardner, Columbia System, Columbus, Ohio, chairman; F. C. Armbruster, Middle West Corp., Chicago, Ill.; E. J. Boyer, Minneapolis (Minn.) Gas Light Company; James F. Orr, Central Illinois Public Service Company, Springfield, Ill.; John J. Quinn, Boston (Mass.) Consolidated Gas Company; George L. Roach, Servel, Inc., Evansville, Indiana; E. C. Weston, Pennsylvania Electric Corp., Terre Haute, Indiana, and John W. West, Jr., secretary.

Elect Cuthrell Assistant Vice-President



H. H. Cuthrell

HUGH H. CUTHRELL was elected assistant vice-president of The Brooklyn Union Gas Co. at a recent meeting of the Board of Directors. He has been connected with this company since May, 1927.

Mr. Cuthrell was born December 5, 1892, in Winston

Salem, N. C. He is a graduate of Wake Forest College and of the University of North Carolina, receiving degrees from both institutions.

In 1912 he joined the Kings County Lighting Co. as engineer of distribution. He held this position until May, 1927, when he entered the service of Brooklyn Union as engineer's assistant. He was transferred to the new business department in May, 1929. The following October he became acting manager of the department and in May, 1930, he was appointed manager.

Mr. Cuthrell has been active in business and as taking a prominent part in the American Gas Association. He was chosen chairman of the A. G. A. Committee on Trade and Dealer Cooperation at the 1930 convention and again in 1931.

At the 1932 convention he was given the Charles A. Munroe award for his noteworthy work relating to merchandising and dealer cooperation.

J. A. Perry Retires From U.G.I.



J. A. Perry

J. A. PERRY, director of research and tests of The United Gas Improvement Company, Philadelphia, and one of the most active research engineers in the gas industry for many years, retired from active service February 1. While discontinuing his official connection with

the company, Mr. Perry has decided to make himself generally available as a consultant for advice, studies, reports and for collaboration with other engineers in making reports for their companies.

During the past ten years, Mr. Perry has been particularly active in the work of the Technical Section of the American Gas Association, having served on various committees and presented many papers at the annual conventions and distribution and production conferences. He served as sectional vice-president of the Association in 1933, as chairman of the Technical Section. As chairman of the Committee on Economic and Engineering Survey of the Gas Industry, Mr. Perry contributed to important reports in a study relating to the alteration of the composition of manufactured gas and the possibility of producing new and valuable by-products. These reports came to be known as the Perry-Little research.

Mr. Perry entered the service of The United Gas Improvement Company in October, 1897, and has held important positions with the company since that time. He began as a construction engineer for the Yonkers Gas Co., and progressed variously through the following positions: superintendent, Yonkers Gas Company; assistant engineer of construction design, U. G. I.; superintendent, Omaha Gas Co.; assistant general superintendent, U. G. I.; gas engineer, manager of gas and electrical operations, and director of research and tests, all with U. G. I.

Home Building in 1935 Increases

MORE than two and one-half times the number of family dwelling units were provided during the year 1935, as in 1934, in all American cities of 10,000 or more inhabitants, according to the Federal Home Loan Bank Board.

During 1935 there were 80,969 family dwelling units provided as compared with only 31,343 units in the preceding year, and 36,267 units in 1933. A continuation in 1936 of the rate of increase in building which prevailed during 1935 would result

in the construction of about 200,000 new dwellings.

In December, 1935, 5,885 dwelling units were provided, or 191 per cent greater than in December of 1934, and represented abnormal activity in winter construction.

The estimates are based upon building permit records from approximately 765 cities, available through the United States Department of Labor.

E. W. Swartwout Is Dead

EVERETT W. SWARTWOUT, designing and consulting engineer, died at his home in White Plains, N. Y., December 31. He was fifty years old.

For ten years he had specialized in the designing of heavy machines for the production of gas.

Mr. Swartwout was born in New York City and graduated from Columbia University in 1908. He was associated for many years with the Connersville Blower Company of Connersville, Indiana, and with the Stacey Engineering Company, New York. For ten years, he had specialized in the design of machines for the production of gas. He was known as an unusually able specialist with a wide fund of sound technical information.

He was a member of the American Gas Association, American Society of Mechanical Engineers and the Society of Naval Architects and Marine Engineers.

Consolidated Gas Makes Personnel Changes



John C. Parker

A NUMBER of changes in the personnel of the officers and Board of the Consolidated Gas Company of New York and its affiliated companies were announced following a meeting of the Board of Trustees, January 27. These changes include the election as vice-president of

Consolidated Gas Company of John C. Parker, who has resigned as president of the Brooklyn Edison Company, Inc., and the election as executive vice-president and a director of the Brooklyn Edison Company of A. Augustus Low, former president of Utica Gas and Electric Company. In addition, two new trustees were elected to fill vacancies existing on the board of the Consolidated Gas Company, namely Edgar Palmer, chairman of the board of the New England Zinc Company; Daniel C. Creem, president of the Brooklyn Fire Brick Works.

Floyd L. Carlisle, chairman of the board of Consolidated Gas Company, was elected chairman of the board of Brooklyn Edison Company and Frank W. Smith, president

of Consolidated Gas Company, became president of Brooklyn Edison Company at a meeting of the Directors of the Brooklyn Company following the meeting of the Consolidated Gas Trustees.

The election of Mr. Parker as vice-president of Consolidated Gas is regarded as significant in that in his new position he will have charge of all the activities relating to technical development, research and experimentation for the entire group of gas, electric and steam companies in the Consolidated System. The activities of the companies along these lines will be coordinated and strengthened, it was stated, with a view to their integrated operation when these companies can be merged into a single system. Previously this work has been carried out by certain of the individual companies, but without the correlation of activity which is to be brought about under Mr. Parker.

W. C. Phelps Dies

WALTER C. PHELPS, assistant treasurer of the Consolidated Gas Company of New York, died suddenly on Monday, February 3 at his home in Mt. Vernon, N. Y. He was 61 years old.

Monday was the 46th anniversary of his employment by the Consolidated system.

Mr. Phelps entered the employ of the Central Gas Light Company, predecessor of the Central Union Gas Company, as an office boy on February 3, 1890, following a public school education. For several years he held various clerical positions in the commercial and general offices of the company and in 1897, when the Central Union Gas Company acquired the Central Gas Light Company, he was appointed general clerk and assistant to the president and other officers.

In 1901, he became assistant secretary of the Central Union Company and in 1904, he was appointed secretary and treasurer.

He joined the Standard Gas Light Company in 1909, and served as assistant secretary from that time to December 31, 1926. On March 4, 1924, he was appointed assistant treasurer of the Consolidated Gas Company of New York.

Mr. Phelps was also assistant treasurer of The Astoria Light, Heat, and Power Company; treasurer of the Tarrytown Terminal Corporation; and treasurer of the Municipal Lighting Company.

He was a member of the American Gas Association and the Society of Gas and Electric Accountants.

R. B. Brown Honored

R. B. BROWN, president, Milwaukee Gas Light Co., and past-president, American Gas Association, was included in the list of nine noted men upon whom the University of Wisconsin board of regents will bestow honorary degrees. Mr. Brown was recommended for the degree of doctor of science.

Affiliated Association Activities

Pennsylvania Gas Association Holds Sales Conference

DESPITE adverse weather conditions, 250 delegates from all sections of the State were in attendance at the mid-winter sales conference of the Pennsylvania Gas Association at the Benjamin Franklin Hotel, Philadelphia, February 14. E. W. Ehmann, Philadelphia Electric Company, president of the Association, welcomed the delegates, most of whom were sales executives and members of their staffs. H. S. Christman, The Philadelphia Gas Works Company, presided.

Paul Dorsey, Cribben & Sexton Company, Chicago, presented a paper on the "New Methods of Selling Gas Cookery."

A. M. Beebe, general superintendent of the gas department of the Rochester Gas & Electric Corporation, in discussing "Economics of the Gas Industry," stated: "Gas and electricity are merely convenient forms of transmitting energy and each has a definite field of service to the public. . . . Where heat is desired generally gas is by far the more economic and less wasteful."

"The local daily newspaper through its advertising columns is, in my opinion, by far the best medium for spreading load educational ideas, for everybody reads his local newspaper," declared Morse DellPlain, president of the American Illuminating Company, Philadelphia, in presenting a paper on "Give the Sales Department a Chance."

Davis M. DeBard, Stone & Webster Company, New York City, presented the advantages and disadvantages of "Load Building by the Trial Renting Plan of Automatic Water Heaters."

The final paper of the day was presented by Firman Nagle, a salesman of The Philadelphia Gas Works Company, who told of the troubles and experiences of a salesman in a paper on "Reactions from the Firing Line."

Missouri Association to Meet in St. Louis

THE annual convention of the Missouri Association of Public Utilities will be held April 29, 30, and May 1 in St. Louis, Mo., at Hotel Jefferson. Membership of the association includes virtually all of the privately owned gas, electric and water companies in Missouri. C. E. Michel, Union Electric Light & Power Co., St. Louis, is president.

Among the speakers will be: L. B. Denning, Dallas, Texas, president of the American Gas Association; Alex Dow, Detroit, Mich., president of the Detroit Edi-

son Company; D. W. Snyder, Jr., Jefferson City, Mo., president of the Missouri Power & Light Company; G. S. Howland, Chicago, Ill., general manager of electric shops, Commonwealth Edison Company; H. T. East, Chicago, Ill., Public Service Company of Northern Illinois; W. Scott Johnson, St. Louis, Mo., sanitary engineer, St. Louis Department of Health; E. P. Gosling, St. Louis, Mo., president, Laclede Gas Light Company; Louis H. Egan, St. Louis, Mo., president, Union Electric Light & Power Company; J. M. Strike, St. Joseph, Mo., St. Joseph Railway, Light, Heat & Power Company.

An employees' public speaking contest will be held on the evening of April 29. Employees of member companies throughout the state are eligible. Separate contests for appropriate prizes will be held for men and women. The subjects will be: For men—"The Utility's Part in the Development and Growth of the Community"; for women—"The American Home—How the Utilities Help Build It."

A safety meeting on the afternoon of April 29 will open the convention. J. M. Strike, chairman of the Accident Prevention Committee, will preside.

The following Program Committee is in charge of completing the program: Dudley Sanford, Webster Groves, Mo., Chairman; C. J. Prashaw, Jefferson City, Mo.; L. W. Helmreich, Jefferson City, Mo.; R. D. Lewis, St. Louis, Mo.; H. E. Scheark, Kansas City, Mo.; R. L. Shuck, Springfield, Mo.

An entertainment program is being arranged by the following committee: Hermann Spoehr, St. Louis, Mo.; Paul C. Ford, Kansas City, Mo.; John P. Casey, St. Louis, Mo.; C. D. Greason, Kansas City, Mo.

Mid-West Meeting, April 13-15

HUGH S. MAGILL, president of the American Federation of Investors, Inc., Chicago, Illinois, will present the feature address at the thirty-first annual convention of the Mid-West Gas Association, which will take place April 13-15 in Minneapolis, Minn. Convention headquarters will be at the Radisson Hotel, ac-

Convention Calendar

MARCH

2-6 **Regional & Group Meetings of A.S.T.M.**
Pittsburgh, Pa.

10-11 **A. G. A. Industrial Gas Section, Industrial Gas Sales Symposium**
Detroit, Mich.

APRIL

2 **New Jersey Gas Association**
Berkeley Carteret Hotel, Asbury Park, N. J.

6-8 **A. G. A. Distribution Conference**
Peabody Hotel, Memphis, Tenn.

13-15 **Mid-West Gas Association**
Minneapolis, Minn.

29-May 1 **Missouri Association of Public Utilities**
Jefferson Hotel, St. Louis, Mo.

MAY

5-7 **Pennsylvania Gas Association**
Lodge of Sky Top, Sky Top, Pa.

5-8 **A. G. A. Natural Gas Convention**
Baker and Adolphus Hotels, Dallas, Texas

11-14 **National Fire Protection Assn.**
Atlantic City, N. J.

20-21 **Indiana Gas Association**
Purdue University, West Lafayette, Ind.

22 **A. G. A. Executive Conference**
Hotel Traymore, Atlantic City, N. J.

25-26 **A. G. A. Industrial Gas Section—General Commercial & Hotel & Restaurant Sales Symposium**
Mayflower Hotel, Washington, D. C.

JUNE

1-4 **Edition Electric Institute**
St. Louis, Mo.

17-20 **American Society of Mechanical Engineers**
Dallas, Texas

29-July 3 **American Society for Testing Materials**
Atlantic City, N. J.

JULY

6-9 **American Home Economics Association**
Olympic Hotel, Seattle, Wash.

8-10 **29th Annual Convention Canadian Gas Association and Northwest Conference Pacific Coast Gas Association**
Hotel Vancouver, Vancouver, B. C.

SEPTEMBER

7-12 **Third World Power Conference**
Washington, D. C.

Wk. 30th **American Transit Association**
White Sulphur Springs, West Va.

OCTOBER

Wk. 26th **A.G.A. Convention**
Atlantic City, N. J.

cording to R. B. Searing, secretary-treasurer.

Included on the program for the three-day meeting are addresses by Alexander Forward, managing director of the American Gas Association; George E. Frazer, of Frazer and Torbet, who will discuss the new manufacturers' association; and H. N. Ramsey, president of Welsbach Company, Gloucester, N. J.

Other speakers and their subjects are:

F. C. Armbruster, Middlewest Utilities Co., "Load Building by Water Heating"; C. H. French, Standard Gas Equipment Corp., "Commercial Gas Equipment"; C. F. A. Schudt, Northern States Power Co., "Servicing of Restaurant and Hotel Equipment"; J. E. Swenson, Minneapolis Gas Light Co., "House Heating"; and A. C. Grant, Minneapolis-Honeywell Regulator Co., "Regulating Equipment for Gas-Fired Furnaces."

In addition the following papers will be presented: "Chimneys—Past, Present and Future," Robert L. Klar, Des Moines Gas Co.; "Gas Refrigeration Load," E. Voneman, Montana-Dakota Power Co.; "Gas Sales vs. Electric Sales," E. C. Sorby, George D. Roper Corp.; and "Servicing of Customers' Appliances," C. D. Robison.

The meeting will also include reports of affiliation representatives.

New Officers Elected at New England Meeting



Officers elected at the annual meeting of the New England Gas Association. In the picture are, reading from left to right: First row—F. D. Cadwallader, G. S. Hawley, R. H. Knowlton, F. L. Ball, R. L. Fletcher and F. M. Goodwin. Second row—W. W. Young, John West, G. W. Stiles, R. N. Hill, C. H. Ackerman and R. J. Rutherford. Third row—G. P. Velte, J. A. Weiser, J. A. Cook, R. B. Wright, W. M. Africa, C. G. Young, H. R. Sterrett and Clark Belden

ADDRESSSED by executives of national organizations as well as by local operating men and sales managers, the tenth annual business conference of the New England Gas Association, held February 14 and 15 at the Hotel Statler, Boston, was hailed by officials and delegates as one of the most successful in the long history of the organization. President R. H. Knowlton presided at the meeting which attracted a large attendance.

The following new officers were elected at the conference: President, F. L. Ball, New England Power Association, Boston; 1st vice-president, R. L. Fletcher, Providence Gas Company; 2nd vice-president, G. S. Hawley, Bridgeport Gas Light Company; treasurer, F. D. Cadwallader, Boston Consolidated Gas Company. Clark Belden was re-elected executive secretary.

New directors include: Past-president, R. H. Knowlton, Connecticut Light & Power Company, Hartford; C. H. Ackerman, Ruud Manufacturing Company, Bos-

ton; W. M. Africa, Manchester Gas Company; W. C. Bell, New England Power Association, Boston; J. A. Cook, Lynn Gas & Electric Company; David Daly, Blackstone Valley Gas & Electric Company, Pawtucket; E. M. Farnsworth, Jr., Boston Consolidated Gas Company; F. M. Goodwin, Boston Consolidated Gas Company; I. T. Haddock, New England Gas & Electric Association, Cambridge; R. N. Hill, Green Mountain Power Corporation, Burlington; H. R. Sterrett, New Haven Gas Light Company; G. W. Stiles, Portland Gas Light Company; G. P. Velte, American Stove Company, Boston; John West, New England Power Association, Boston.

The following men, as next year's division chairmen, are Association directors, having been elected by the members of their respective divisions: J. A. Weiser, Operating, Newport Gas Light Company; R. J. Rutherford, Sales, New England Gas & Electric Association, Cambridge; W. W. Young, Jr., Industrial, Connecti-

cut Light & Power Company, Waterbury; C. G. Young, Accounting, Springfield Gas Light Company; R. B. Wright, Manufacturers, Glenwood Range Company, Boston.

New Jersey Annual Meeting

A STRONG program, emphasizing sales, will be offered delegates to the twenty-fifth annual meeting of the New Jersey Gas Association to be held at the Berkeley Carteret Hotel in Asbury Park on April 2, 1936, starting at 10 A.M.

Following the welcome to Asbury Park by T. R. Crumley, president of Jersey Central Power and Light Company, H. E. Cliff, president of the Association, will review the year's activities. Election of officers for the coming year will be one of the items in the short program of business in the morning session.

American Gas Association President L. B. Denning will head the list of speakers to

follow the business session. A description of the new coke ovens of the Camden Coke Company will be presented by a member of that company. H. H. Agee's paper on gas rates will conclude the morning session.

After luncheon, the program will be devoted entirely to sales topics. H. A. Sutton, of Public Service Industrial Fuel Department, will discuss Commercial Gas Sales, followed by an interesting "Mystery Chef" broadcast.

The major portion of the afternoon will consist of a water heater symposium. Lester Ginsburg, marketing consultant of Cambridge, Mass., will discuss the New Jersey water heater market. Prof. Gordon B. Wilkes of Massachusetts Institute of Technology will present comparative costs of water heating, using different fuels. R. F. Canniff, general sales manager of the Pittsburgh Water Heater Company, will describe the most modern gas water heating equipment. H. S. Christman, sales manager of The Philadelphia Gas Works Company, will outline plans for plumber-dealer co-

operation. William F. Hope, of the Newport Gas Light Company, will conclude with an appeal to gas companies to sell more heaters.

An innovation this year will be the evening banquet. It is hoped that most of the 500 expected delegates will remain to renew friendships, and enjoy the entertainment that will be presented.

Indiana Gas Association

THE Indiana Gas Association will hold its annual convention at Purdue University, Lafayette, Indiana. Sessions will be held during the afternoon of May 20, Thursday, and Friday morning, May 21.

The principal topics for discussion at the meeting are: Decreasing Unaccounted-for Gas, Dust Mitigation in Transmission and Distribution Systems, and Means of Regaining Lost Gas Revenue. W. E. Nichols, of the Northern Indiana Public Service Company, Hammond, Indiana, is chairman of the Program Committee.

Canadian Law Affects Marking of Water Heaters

BY a recent ruling of E. O. Way, director of Weights and Measures, Department of Trade and Commerce, Dominion of Canada, pursuant to "An Act to Amend the Weights and Measures Act," Chapter 212 of the Revised Statutes of Canada, 1927, all storage water heating equipment sold or advertised in the Dominion of Canada must now bear indication of the actual storage vessel capacity in Imperial gallons accurate to the nearest gallon. Inasmuch as many American manufacturers have been selling equipment in Canada rated, as regards storage capacity, in the smaller U. S. gallons, and inasmuch as the American and Canadian Gas Associations have long ruled that capacity markings need only be accurate within 7½ per cent, the new Canadian law will affect the traditional name plate marking practices of numerous water heater producers and jobbers.

A letter advising water heater manufacturers of the new Canadian ruling, together with copies of documents setting forth the amendment and Mr. Way's ruling, was sent out from the American Gas Association Testing Laboratories in Cleveland, Ohio, as of January 31, 1936.

The Act itself reads as follows:

"The said Act is amended by inserting the following section immediately after section seventy-four thereof:

"74A. No person shall sell or offer for sale any vessel, utensil or container which is represented as of a definite size or capacity in terms of measure unless such size or capacity is in terms

of Dominion measure ascertained by this Act or some aliquot multiple or submultiple thereof, and any person who contravenes this provision shall be guilty of an offense and liable to a penalty not exceeding twenty-five dollars for a first offense and not exceeding fifty dollars for a second or subsequent offense."

E. O. Way's decision is stated as below: "Re accuracy of gas water heater tanks and containers. We are not treating these tanks as measures and are therefore not particular about 100% accuracy, but a variation of 7½ per cent (which has been suggested) is, to my mind, too high—3½ gallons on 50.

"Mr. . . . 's suggestion to gauge by actual weight of water—10 lbs. to the Imperial gallon—is a good one and a simple one, and I think it would be 'near enough' to mark to the nearest gallon. Thirty and one-half could be marked 30 gallons, 30¾ could be marked 31 gallons and so on.

"Our chief object is to prevent quotations in American gallons, rather than any fine degree of actual accuracy, and I do not think any trouble could arise from a discrepancy of a fraction of a gallon."

The net effect of these developments upon water heater manufacturers will not be great. In most cases it will only be necessary for the producer to add a marking of actual vessel capacity in Imperial gallons to his name plates. In certain cases it may mean testing tank capacities at the factory in order to supply the proper data.

Air Conditioning Gains Stature in New A. S. H. V. E. Guide

THESE days, when new ideas, new methods and new equipment are paraded before the public in a ceaseless stream, building modernization, which at first was hardly more than a catch word, is becoming an engineering and economic force of the first magnitude.

Heating and ventilating have changed to year 'round air conditioning. Only a few years ago air conditioning was in its swaddling clothes. It is now growing up and is one of the most promising of industries.

One of the most striking ways in which this gradual change from heating to air conditioning can be comprehended is by examining the "Guide 1936" of the American Society of Heating & Ventilating Engineers. Truly this depicts a profession that has changed. For several years the editors of the yearly editions of the Guide have attempted to present air conditioning as a fully developed field of engineering. Their efforts were worthy, but the task was impossible. The development had not yet reached the stage where processes, equipment or the public's idea of what constitutes real comfort had stabilized. That was the period when every device from a teapot to a refrigerator was called an air conditioner and when half the profession as well as all of the public was wondering what it was all about.

As interpreted in this year's Guide air conditioning, both winter and summer, is approaching maturity. There is a determined effort to separate the wheat from the chaff, not only as to what technical material has a right to be considered, but also as to what types of equipment have earned a permanent place in air conditioning. This year's Guide can be considered the nearest approach yet achieved in a single volume to what, in the future, will be considered standard text and reference books on the erstwhile profession of heating and ventilating.

Each type of heating, ventilating and air conditioning equipment that has attained professional acceptance is presented and discussed in a manner that is, on the whole, commendable. Each class of equipment is handled in a separate chapter and each general technical classification is likewise treated.

Gas as a heating and air conditioning medium is treated from several angles. In each instance, as is also true throughout the book, pertinent supporting data are given.

The Guide 1936 was prepared under the supervision of a committee headed by G. L. Larson. Over sixty authorities contributed. It contains 791 pages and deserves the attention of everyone who would keep abreast of the technical evolution of the old art of heating and ventilating into the new art of year 'round air conditioning. —E.D.M.

Natural Gas Department

William Moeller, Jr., Chairman

A. E. Higgins, Secretary

George E. Welker, Vice-Chairman

Lone Star Gas To Build Hall of Religion for Texas Centennial

L. B. Denning, president of the Lone Star Gas Company, is shown seated at the right going over plans for the building with R. L. Thornton, while Joseph F. Leopold, Dallas supervisor of public utilities, standing at the left, and W. A. Webb, general manager of the Exposition, look on.



Photos Courtesy The Dallas News

AT the request of the Religious Participation Committee and the Management Committee of the Texas Centennial Exposition, the Lone Star Gas Company, Dallas, Texas, has agreed to build a Hall of Religion for the Centennial as the company's participation in the exposition. Announcement that the company would present this structure to the religious bodies of the state was made by L. B. Denning, president of the Lone Star Gas Company, on Jan. 23 in Dallas in the office of R. L. Thornton, chairman of the Management Committee of the exposition.

The building and equipment are to cost approximately \$50,000 which will be donated by the stockholders of the company. The structure is to be built on the grounds of the exposition in Dallas and is expected to be completed May 15. The exposition opens June 6. The build-

ing will be a permanent structure for religious meetings, according to Mr. Denning and W. A. Webb, general manager of the Exposition. It will be air conditioned and contain a modern kitchen. A patio, reception and assembly rooms will be provided and there will be eleven separate rooms for the exhibits of various religious denominations.

In replying to the request that the Lone Star Gas Company sponsor the Hall of Religion, Mr. Denning said:

"The religious denominations have had a most vital part in the founding and orderly development of this great state and today their influence on the moral, social and civic life of our communities is beyond estimate. We believe also that the Lone Star Gas system has played an important part in developing the cities and towns of Texas and in shaping the type of home life which we now enjoy.

It seems to me that we can rightly claim, in some measure, to represent the homes of the state. Consequently, a Hall of Religion such as you suggest would represent the three great institutions of modern American life—the Church, the State, and the Home.

"It gives me great pleasure, therefore, . . . to state that Lone Star Gas system will be glad to sponsor the Hall of Religion under plans which we can mutually develop, and we pledge you our cooperation in building a structure that will be of real service to the churches and the public."

High praise for the company's action was reported in newspaper comment. Editorially, the *Dallas News*, January 26, hailed it as a "gracious act" of the stockholders. "The Lone Star Gas Company" the editorial concluded, "will be well repaid in good will. The action taken is uniform with many other humanitarian and progressive activities undertaken by the company in step with progress in Dallas and the Southwest. The Texas Centennial and anxious church people find themselves under a distinct debt of gratitude."

Make Plans for Dallas Convention

ARANGEMENTS for the annual convention of the Natural Gas Department to be held in Dallas, Texas, May 5 to 8 were perfected at a meeting February 6 which was attended by William Moeller, Jr., of Los Angeles, vice-president of Southern California Gas Company and chairman of the Natural Gas Department. At the meeting in Dallas, Mr. Moeller conferred with L. B. Denning, president of the American Gas Association, and Captain A. E. Higgins, secretary of the department. The Baker and Adolphus hotels will be headquarters for the spring meeting which is expected to draw the largest gathering of gas men ever held in Dallas.

The following committee chairmen were appointed for the convention: General arrangements, R. G. Soper; advertising, Will C. Grant; entertainment, Ben Newberry; transportation, L. B. Denning, Jr.; program arrangements, George Martin; reception and attendance, C. K. Patton.

Private business venture is a tax *payer*, government business venture is a tax *taker*.

Engineering Course Planned

ORGANIZATION of a course in natural gas engineering, to be offered with the opening of the fall semester of 1936, has been perfected by the natural gas advisory committee of the Texas College of Arts and Industries at Kingsville, Texas. The course will consist of four years of work including practical experience through frequent trips to the natural gas field near the city and through required

summer's employment with natural gas industries throughout the state following each of the years before graduation.

Frank C. Smith, president of the Houston Natural Gas Company, was elected permanent chairman at an organization meeting held by the advisory committee. Sub-committee chairmen are to be announced soon by Mr. Smith. Present at the organization meeting were Chester L. May, vice-president of the Community Natural, and Captain A. E. Higgins, secretary of the Natural Gas Department, among others.

John B. Tonkin Ends Active Career in Natural Gas Industry



John B. Tonkin

42 years of service with various subsidiaries of the Standard Oil Company of New Jersey. It was attended by 275 employees from New York, West Virginia and Pennsylvania.



J. F. Robinson

of the same company, is to be assistant to the vice-president.

Mr. Tonkin was born at Tidioute, Pa., in 1875. His father, the late Captain John Tonkin, was a pioneer in the oil and gas industry, and entered business in Tidioute after serving in the Civil War. He completed his education at the United States Naval Academy.

He started in the gas business as a water boy on a pipe line construction job during summer school vacations. His first full-time job came in 1894 as a pipe line superintendent's clerk with the River Gas Company at Marietta, Ohio. From there he advanced to the purchasing department of the National Transit Company at Oil City, Pa.

JOHN B. TONKIN, president of the Peoples Natural Gas Company and affiliated companies, Pittsburgh, Pa., announced his retirement from active duty at a dinner, February 9, at the Pittsburgh Athletic Association. The dinner was given as a testimonial to Mr. Tonkin's

He came to Pittsburgh in 1902 to become treasurer of the Hope Natural Gas Company, was elected vice-president and general manager of the Peoples Natural Gas Company in 1918 and became president of the company in 1933. At the same time he was made president of the Columbia Natural Gas Company, the Lycoming United Gas Corporation and affiliated companies, having been vice-president of these companies since 1930. He was a director and past president of the Pennsylvania Natural Gas Men's Association, and was for several years a director of the Natural Gas Association of America. He recently retired as chairman of the Natural Gas Department of the American Gas Association.

Mr. Tonkin is a director of the Peoples-Pittsburgh Trust Company and is on the board of directors of the Passavant hospital. He was one of the charter members of the Pittsburgh Field Club and served as its president for a number of years. He is a member of the Duquesne Club and the Pittsburgh Athletic Association.

Mr. Robinson is said to be one of the youngest executives in the natural gas industry. He is a graduate of West Virginia University and holds an honorary degree of doctor of science from the University of Pittsburgh. He has been connected with the Peoples Natural Gas Company

and affiliates for 15 years, acting as manager for the Lycoming United group of companies since 1930. He has been vice-president of the Peoples Natural Gas Company since 1933.

Mr. Preston is a graduate of Cornell University in mechanical engineering. He has been employed by the Hope Natural Gas Company and the Peoples Natural Gas Company since 1911. Since 1933 he has been chief engineer of the Peoples Natural Gas Company.

Natural Gas Magazine Merges with Gas Age-Record

ANNOUNCEMENT was made in the February issue of *Natural Gas Magazine* that the magazine, beginning with an early March issue, would be merged with *Gas Age-Record*, a weekly gas trade journal published by Robbins Publishing Company, Inc.

In making the announcement, H. J. Hoover, publisher of *Natural Gas Magazine*, made the following statement: "For the past fifteen years, *Natural Gas Magazine* has faithfully and, I believe, satisfactorily, represented the natural gas industry—a mission for which it was established by the Natural Gas Association of America in 1920. However, increasing demand upon my time for closer attention to other interests within the industry does not permit the continued personal supervision such an important publication as *Natural Gas Magazine* requires.

"The merger of this magazine with *Gas Age-Record* was entered into after careful discussion between the publishers of both magazines concerning the problems of the natural and manufactured gas industries, and a complete understanding on the part of *Gas Age-Record* as to fulfilling the need of a publication to adequately serve the natural gas field as we have done in the past. We feel that the merged magazine will accomplish this to an even greater extent. . . ."

J. H. Moore is president of the Robbins Publishing Company, Inc.

News of Pacific Coast Companies

EIGHTY-TWO electric ranges have moved out and 82 new, modern gas ranges have moved in—to the kitchens of the exclusive Asbury Apartments, 2505 West Sixth Street, Los Angeles.

The Southern California Gas Company is to be congratulated upon its ability to displace such a large group of electric ranges (served by municipal light and power).

Gas-Fired Ceramic Kiln

Of interest to all ceramic engineers is the new gas-fired equipment installed at the plant of the Pacific Clay Products Company, Los Angeles. It is the pride of industrial gas engineers as well as engineers in the ceramics field. The kiln,

150 feet long, was made especially for the production of a new line of ware—bisque and glaze ware, artware, flower bowls and vases, tableware, ovenware and ordinary stoneware. It is possible with this modern equipment and the efficient firing of natural gas, to change from one product to another, an operation not possible with ordinary less efficient units. It is possible to turn out an order in two and one-half days—a short time in the ceramics industry.

Briefly, the firing section of this kiln is 26 feet long, with each firing unit under separate control, but producing an overlapping effect in heat application. The result is accurate and rapid heat changes.

The walls of the tunnel vary from 16 inches at the discharging and charging ends to 19 inches at the firing zones. The ware travels through the kiln on a small flat car for a heating period of forty hours. The peak run of temperature in the firing zone is 1,840° F. One of the problems in the manufacture is the cooling of the ware as it emerges from the firing zone. This has been solved by a system whereby cool air is blown through a carbon dioxide heat exchanger which absorbs heat from the ware in the cooling chamber.

This development was made possible by the ease of control and cleanliness of natural gas.

Extend Pipe Lines

To insure an adequate natural gas supply for southern California, the Industrial

Fuel Supply Company, a Pacific Lighting subsidiary, has completed the installation of a 15-unit compressor plant in the new Mountain View Field, about 7 miles southeast of Bakersfield, California, and has installed 21 miles of 10" pipe line connecting with the main transmission system.

Southern California Gas Company, another Pacific Lighting subsidiary, has completed the installation of 7 miles of 10" line connecting the gas wells of the Ohio Oil Company in the new Buena Vista Lake Gas Field near Taft, California. It has also completed 10 miles of 10" pipe line and collecting facilities in the new Semi-Tropic Gas Field to make this gas available to its transmission system.

—ROY M. BAUER

Gas Service Brings Comfort During Severe Cold Wave

OLD MAN WINTER struck hard and often this year, adding much to the suffering and discomfort of those without adequate housing and reliable fuel supplies. Reports from different sections of the country have recorded many unusual experiences and not a few editorials praising gas service when other fuels had failed.

Many homes in the middle west were without fuel and some state-wide fuel shortages were reported. Kitchen gas stoves provided the only warmth in many Iowa homes. Retail and wholesale coal dealers said their yards were empty. Every available pound of coal was exhausted in Bedford, Iowa, with the temperature far below zero. Dealers would promise no deliveries before a week.

Recall Earlier Experiences

The McKinney, Texas, *Examiner*, in a story about gas service, says the Community Gas Company "means just about everything to this section at this time. For how would we have got along without the splendid service that has been and is being furnished the people of McKinney during this terribly cold and miserable weather? For comfort just visit the homes of those who are patrons of this great company. Every room comfortable, with an unlimited measure of gas right at the finger tips."

"Those of us who remember the earlier experiences here when gas was first installed, when we were sometimes unable to get a full pressure of gas when these extreme cold spells struck, will appreciate what it means," the story continues. "For, the gas not to get here was like it used to be when we 'old timers' hustled in the cold up town to see if there was a wagon load of cord wood or maybe a little load of stove wood, on the square—but that is all in the past. If you want

real comfort at one-third the cost and 90 per cent more convenient, go up and see Manager F. V. Williams. He'll fix you up to live."

Preparations made in the heat of last summer when nobody was thinking about his gas supply, enabled the Lone Star Gas

Planning Natural Gas Display at San Diego



An exhibit three times as large as last year has been planned for the natural gas display at California's Exposition, which opened Feb. 12 at San Diego. Officials of the San Diego Consolidated Gas and Electric Company are seen discussing the final plans for the exhibit. Seated is W. P. Raber, president, while standing are Ralph J. Phillips (left), engineer in charge of gas sales, and A. E. Holloway, vice-president.

Company, Dallas, Texas, to be completely prepared to meet demands for gas during the cold waves that struck the system in January, according to an article in *Blue Blaze News*.

In addition to the routine preparations such as repairing pipe lines, overhauling compressor stations, and drilling additional wells, the company laid a 108-mile, 20-inch line from Long Lake and Cayuga gas fields in Anderson County and tied it into the system at Irving.

When the frigid weather was at its lowest point this line together with other pipe lines poured gas into the many towns on the Lone Star System. The Lone Star Gas Company had tied into more than 1,000 gas wells in the thirty-one fields on the system and had others standing by ready for service. Although the demand increased several hundred per cent over the demand of the spring-like weather that preceded the cold waves, the pipe lines already had been packed with gas well in advance to meet the emergency.

Typical of the system-wide service, the Dallas Gas Company had a crew of extra men on duty to answer emergency calls. Measuring stations, which regulate the flow of gas from the pipe lines into the Dallas distribution system, each had a man on duty to turn in all gas needed in accordance with the demand.

Headed, "A Lesson in Contrasts," an editorial in the *Dallas Dispatch* says:

"Perhaps the sharp contrast of our condition in the present cold spell with that of 1919 will make more appreciable the comfort we have. The story is told in an editorial in the *Dallas Dispatch* written during the gas shortage of 1919. 'Dallas awoke this morning and began a scramble for fuel,' the editorial begins. 'We arose earlier than usual and spent a morning hour in demolishing such packing crates and old boards as we could get our hands on. Then we started the quest for a wood pile. The wood yard had no sawyer this morning. The customer ahead of us was being permitted to split his own wood. Every man was his own deliveryman this morning. One man paid 50 cents for a stick of cord wood and carried it away on his shoulder to be decimated at home. We preferred pole stuff as more suitable to the family ax, and our ability to follow the example of the wood chopper of Ameron. We selected a half dozen blocks without stopping too often to rest. We got the armful for a quarter. . . . We called at an oil station to buy kerosene and found that the price had gone from 17 to 19 cents a gallon and that a shortage impends. And the gas pressure was going lower and lower.'

"Wood at 25 cents by the armful, \$15 to \$17 by the cord. Kerosene 19 cents a gallon. Gas almost exhausted. And the cold continues. . . ."

"Quite a contrast, the unfailing supply of gas through the excessively cold days of the present winter. . . ."

Gas Measurement Short Course To Be Held in April



Meeting at Norman, Okla., January 20, to discuss the gas measurement short course. In the picture are, left to right: Front row—Paul Stockwell, A. E. Higgins, R. D. Turner, Gilbert Estill, W. H. Carson. Middle row—Max Watson, Ray Rountree, E. E. Stovall, G. W. McCullough, Fay C. Walters, L. G. Rheinberger, R. D. Hanley, V. C. Jarboe. Top row—W. R. McLaughlin, Earl Knightlinger, J. H. Satterwhite.

THE General Committee of the Southwestern Gas Measurement Short Course met at Norman, Oklahoma, January 20, to formulate the program and make necessary arrangements for this year's course. The course, sponsored by the School of Natural Gas Engineering, University of Oklahoma, the Corporation Commission of the State of Oklahoma, the Oklahoma Gas and Electric Utilities Association, and the Natural Gas Department of the American Gas Association, will be held at the university at Norman on April 21, 22 and 23.

Professors of the university and representatives of manufacturers of gas measurement equipment conduct the short course each year for the benefit of members of the natural gas industry charged with the responsibility of measurement of gas. Classes are open to all measurement men in the industry as well as engineering students of the university who in large numbers have taken advantage of this opportunity each year.

The purpose of the Southwestern Gas Measurement Short Course is to increase the accuracy of measurement and the efficiency of regulation for the better serving of the public, more accurate and equitable adjustment of purchase and sale of natural gas and the dissemination through the industry of correct information regarding the highly technical engineering problems involved.

The General Committee instructed E. E. Stoval, chairman of the Program Committee, to investigate the feasibility of increasing the scope of work given during this school by including papers on subjects not directly related to measurement, but which would be beneficial to the gas measurement man in his work. The Publication Committee was authorized to publish a bulletin covering

the proceedings of the 1935 and 1936 Short Course. These bulletins will be available to those who register for this year's course. Additional bulletins may be secured by others at a nominal cost.

A meeting of the General Committee will be held in March, at which time final reports will be given and arrangements completed for the 1936 Short Course. R. D. Turner, Tulsa, is chairman of the General Committee; E. E. Stoval, Dallas, Texas, chairman of the Program Committee. The subcommittee chairmen are: W. H. Carson, Norman, Banquet, Entertainment and General Arrangements; Gilbert Estill, Tulsa, Exhibits; C. A. Breitung, Ada, Registration and Publicity; Ray Rountree, Houston, Texas, Committee for the Study of Practical Methods and Max Watson, Amarillo, Texas, Publications.

Other members of the 1936 committee are: E. Maurice Myers, Oklahoma City; A. E. Higgins, Dallas, Texas; William F. Lowe, Tulsa; J. H. Satterwhite, Tulsa; W. H. McLaughlin, Tulsa; G. B. Lane, Dallas, Texas; B. P. Stockwell, Oklahoma City; George P. Bunn, Bartlesville; L. G. Rheinberger, Tulsa; V. C. Jarboe, Bartlesville; Earl Knightlinger, Shreveport, La.; R. D. Hanley, Dallas, Texas; Fay C. Walters, Kansas City; G. W. McCullough, Bartlesville, Oklahoma.

Correction

IT was erroneously announced in the February issue of the A. G. A. MONTHLY that Giles Benjamin Sykes, recipient of a McCarter medal for life saving, was an employee of the Consolidated Gas Company of New York. Mr. Sykes is employed by the Long Island Lighting Company.

Book Review

The Page-Swift Boiler Reference Book.
1936 Edition. Pub. by John S. Swift Co., Inc. \$1.00 plus 10 cents postage.

The third volume of a series of books giving dimensions and ratings for steam and hot water boilers is just off the press. This edition does not duplicate or repeat any of the information published previously. The three editions—1934, 1935, and 1936—now list boilers of seventy-six manufacturers. A master index for all the boilers listed is also furnished.

—J. M. K.

Special Issue Carries Story of Oil

IN a special 512-page educational number, the February 5 issue of *National Petroleum News* carried the story of the oil industry to the general public. Consisting of 300 pages of editorial material, including some 70 articles, many by special writers of prominence, the issue tells of the great variety of ways in which the oil industry and its products serve the public. A striking amount of facts and data is compiled about the oil industry whose tax bill alone in 1935 was over \$1,125,000,000.

Aircraft Plant Uses Natural Gas

THE new million dollar aircraft plant of the Consolidated Aircraft Corporation, recently completed at Lindbergh Field, San Diego, California, utilizes natural gas supplied by the San Diego Consolidated Gas and Electric Company, as basic fuel for all heating needs. The maximum hourly load requirement for the plant is 10,000 cubic feet.

Stone Heads Spokane Gas Company

JAMES L. STONE, vice-president and general manager of the Spokane Gas & Fuel Co., Spokane, Wash., has been elected president, succeeding Henry L. Doherty of New York. He will continue as general manager of the company.

Thomas I. Carter of New York was re-elected vice-president and Ben H. Hoke of Spokane, secretary-treasurer. The latter formerly was secretary. E. E. McWhitney of New York was re-elected assistant secretary and T. A. Wallace, also of New York, assistant treasurer.

Mr. Stone in his report for the last year noted progress in every department. Increase in the number of customers was shown as well as in the volume of gas sold. There was a gain of 50 per cent in appliance sales.

Accounting Section

F. L. Griffith, Chairman

H. W. Hartman, Secretary

E. J. Tucker, Vice-Chairman

Management and Athletics

THE instinct of man to vie with his neighbor, whether in the cut of his clothes, the size of his house, or the speed of his automobile, is as universal and enduring as it is primitive. Since the first time that two or more cavemen gathered together to form a unit of society, there has continued a grim and humorless competition for material goods and temporal power—and the generally less grim and more jovial desire to out-do the other fellow in contests of physical prowess and skill.

It is doubtful whether there is a single gas company in the country, large or small, which does not carry on within its organization—officially or unofficially—some form of athletic activity. The extent to which some companies have gone in fostering and developing this activity gives ample proof of the belief of a considerable part of management in its value. Whether or not that belief is entirely justified is a question so controversial and so influenced by personalities, local conditions and the nature of the activities that it would be valor without discretion to attempt a definite answer. But company athletics, whether ignored or publicized, are almost inevitable and it is wise to pause and give thought to the attitude that management should take toward them.

Health Contribution

Company athletics, although probably favored by some only because they are fun, are generally given credit for contributing to the physical and mental health of the participants, and developing in those participants and the employee body as a whole a spirit of company loyalty and interdepartmental cooperation and friendliness. Such objectives are worthy of the efforts of any company, and it is unfortunate that management occasionally discovers a fly or two in the ointment of fulfillment.

It is difficult to treat unenthusiastically such an event as, for instance, an occasional baseball game between the married and single men of a department or company. And yet, because the majority of the players are probably inactive physically most of the time and have a tendency to underestimate the influence of increasing years and sedentary habits on muscles and hearts, the physical effects from such events are more apt to be harmful than beneficial.

Then, too, where is there the inter-

Contributed by the Office Management Committee.

By WESLEY N. GEITER

Consolidated Gas Company of New York,
New York, N. Y.

company or inter-departmental basketball league which does not have its cliques that leave open the door for discrimination, or its rivalries which develop into antagonism. Petty jealousies are not conducive to friendliness, and an antagonistic rivalry at night will have its adverse effect upon the cooperative effort of the following day.

Appeal to Large Group

And because these unfavorable sidelights, although not necessarily numerous or serious, do occasionally create a problem for the manager, he cannot remain completely disinterested. In determining the attitude that he as a manager should assume, he might do well to consider first the types of athletic activity which would tend to do the greatest good to the largest number of employees. Secondly, he should give serious thought to the advisability of his active or passive participation in such activities as he may consider beneficial and within the limitations of company or employee facilities.

In considering the greatest good to the largest number, there can be little doubt that classes in calisthenics and gymnasium, if properly conducted in suitable quarters, would head the list of desirable activities from a managerial viewpoint. Unfortunately, it is difficult to convince the participant that he is having a good time. Group swimming instruction and aquatic sports, however, as well as bowling, bocce, tennis and golf tournaments all have in them the attractive element of sport and, with the possible exception of the latter two, permit the participation of large groups of employees.

Generally speaking, it might be considered advisable not to encourage that form of athletic activity which demands vigorous physical contact in its execution. Such a statement may sound a little sissyfied and admittedly is based on logic rather than natural inclination. But athletics of that type require, first, that the athlete, for his own good, be in good physical condition and keep in training. Insistence on those conditions before permitting the employee to compete would automatically eliminate the larger part of those interested in such activities.

Secondly, a sport such as basketball, for example—unless developed on a large and democratic scale—does by its demands on the condition and skill of the

athlete confine itself to meager and selected representation. It is not, then, a sport which contributes the greatest good to the largest number of employees. Also, it is through this necessary selection and weeding out of aspiring athletes that there develop those petty jealousies and grumblings of unfairness and favoritism which sometimes are heard in the office washroom or the shop.

Still looking from the angle of management, sports which require vigorous physical contact invite injury—particularly if the participants are not in the best of condition—and are more prone to develop those rivalries which turn into personal antagonisms and collective feuds. By intent or accident a player gets "dirty" and in the second half the other team gangs up on him. The next time they play, the teams collectively gang up on each other—and friendliness and cooperation disappear through the gymnasium window. "School-boy stuff" you may say, but man is only a schoolboy with long trousers and a beard.

Manager's Participation

Whether or not the manager should participate actively in company athletics is determined to a large extent by the nature of his personality, his position, and his physical capabilities. Certainly he should lend his moral support to those activities which he feels are of general benefit, but he may well hesitate before becoming an integral part of them.

The larger part of management in the gas industry is composed of those who have worked their way up through the ranks and are, to use the vernacular, "regular fellows." Company responsibility has not decreased their interest in bowling, tennis or golf, and they enjoy occasionally "letting down their hair," so to speak, and having a good time with the rank and file of their staffs. Their participation may stimulate interest on the part of the employee, inspire his efforts, and strengthen his spirit of loyalty and service to the manager and therefore to the company.

There are those employees, however, who will insist upon carrying over into the office the friendly familiarity of the playing field and the gymnasium. And the manager, after being slapped on the back and being called by his first name in the presence of his superior or some outside business representative, is accused of having developed a "swelled head" when he reminds the tactless employee that deference and dignity are necessary adjuncts to healthy discipline and efficiency.

It is also difficult for the manager, because he is human, to maintain a completely fair and balanced attitude toward the employee with whom he has shared the delight of athletic partnership. Although it may be entirely unconscious, his slightest indication of favoritism will be noted and magnified by the rest of the department. In his effort to avoid such a possibility, the manager may lean over backwards in his desire to be fair and do the employee actual injustice.

In considering the viewpoint of the employee, management should remember that however democratic their conduct may be after hours, to the employee they are still "the boss." That thought, subconsciously in the mind of the employee as he plays, has a tendency to put him on his good behavior—which is another way of saying that he does not feel completely free to do and say what he pleases.

There is some basis for concluding, then, that company athletics should be subject in their scope to the judgment of management, and that management should limit itself to a passive encouragement of such activities as it feels are of the greatest value to the employees. In the final analysis, however, the whole question may be answered by strict adherence to the meaning of one word—Moderation.

MANAGEMENT AND PUBLIC RELATIONS

(Continued from page 86)

turers is necessary in this field, particularly in the construction of kitchen space heaters. Our market surveys indicate that white enamel heaters of the luminous flame type are best suited to this purpose. A development of the small instantaneous heater in connection with the three-purpose range is also an important need.

These surveys are what we live by; they mean a painstaking examination of all of the possibilities for the sale of gas no matter how small. They involve the maintenance of an open-minded, flexible sales policy and the willingness to fix the rate that will develop the business. They have allowed us during the past two years to reverse the downward trend of the revenue per customer in the residential field and in spite of rate reductions to show an encouraging upturn in the curve.

We are fully convinced that this whole process of business development results in a marked improvement in our public relations.

In conclusion, I cannot stress too strongly the importance of coordinating the effort of all employees in the

business development plans of the company. We conduct educational campaigns with employees by the group conference method and plan to keep our employees continuously advised of the company's new business activities. In various employee activities in cooperation with appliance dealers, employees are compensated for leads on house heating, water heating, etc. In addition, we have been developing with our employees during the past two years an Employee Representation Plan based on the principal of joint conference which is in process of becoming an important factor in the further development of the company's operations.

The overall result of the various activities which I have reviewed with you lead me to look forward with confidence to the maintenance and further development of the gas business, and it is my firm conviction that if we live up to our responsibilities and obligations in this regard, the question of good public relations will be automatically answered.

COOKING CONTEST

(Continued from page 95)

tric, and it was not possible to properly toast bread on the latter appliances.

Other interesting facts were developed through these tests. One was that when a new cooking vessel was removed from the top of the electric range, it was definitely dirty from sticky substances or grease accumulations which had stuck to the electric unit. Cleanliness is one of the major talking points of the electric range industry. With the more expensive electric elements, the amount of cooking filth was not nearly so noticeable, but these units run up the cost of the ranges materially.

There was no grease, sticky substances, or anything else on the bottom of the vessels that were used on the gas range with the modern type burner. It is also interesting to note that we did not clean the gas top burners used during the demonstration as we wanted these for demonstration of positive cleanliness.

Every one of these tests was made in local homes and under actual home conditions.

Utilities Lead Organized Safety Work

THREE of every five American companies carry on safety promotion through organized programs, the National Industrial Conference Board reported in February.

Its survey covered 2,452 companies in manufacturing, mining, transportation, and communication, wholesale and retail trade, finance and public utilities, and it shows a total of 4,500,000 employees covered by safety campaigns, with safety committees functioning in 1,429 plants.

Organized safety work is more prevalent in large companies than in small ones, and the utility groups leads in proportion of coverage, with 85.4 per cent of companies using some form of organized program.

Oklahoma Natural Resumes Employee Publication

BECAUSE of the keen interest expressed by many employees of the Oklahoma Natural Gas Company, Tulsa, Okla., Robert W. Hendee, president, recently announced that the employee publication, "Gas News," which was discontinued some time ago, would resume publication. The first issue made its appearance January 29, containing "Thumbnail Sketches from Oklahoma City," and other interesting features. There are special departments for home service news, sales department news, and safety news.

John D. McIlhenny Dies

JOHN D. MCILHENNY, Philadelphia sportsman, died in Quebec on February 17 of pneumonia. He was 36 years old.

McIlhenny was a son of Mrs. John D. McIlhenny, whose art gallery in her home is one of the finest private collections in Philadelphia. His late father was an official of The United Gas Improvement Company and was once president of the Philadelphia Art Museum. Another son and daughter survive.

Former Key West Gas Man Dies

MERRILL F. SANDS, 44, owner and manager of the Plaza restaurant, died February 9 in Key West, Florida.

Mr. Sands was a native of Key West. He served for several years as superintendent of operations of the Key West gas plant and for several years was superintendent of the Cuban Gas Company with headquarters in Havana. He resigned that position during the uprising in Cuba three years ago and returned to Key West to open the restaurant.

Commercial Section

C. E. Bennett, Chairman

J. W. West, Jr., Secretary

F. M. Banks, Vice-Chairman

Greater Sales Effort Urged at Annual Regional Conferences

GAS company executives, sales managers, supervisors and salesmen in the eastern natural gas, mid-west, and southern-southwestern regions attended, in large number, the annual sales conferences sponsored in these territories during February by the Commercial Section of the American Gas Association.

The Eastern Natural Gas Sales Conference was held in Pittsburgh, February 6-8, with more than 250 in attendance. George L. Scofield, Republic Light, Heat and Power Company, Inc., Buffalo, N. Y., chairman of the conference, presided. The Mid-West Regional Gas Sales Conference took place in Chicago, February 13-15, and the Southern-Southwestern Conference was held in New Orleans, February 19-22, in conjunction with the annual convention of the Southern Gas Association. The mid-west conference attracted approximately 400 delegates, while the New Orleans meeting was attended by more than 350 gas men. H. J. Dropp, Milwaukee Gas Light Company, was chairman of the Mid-West Sales Council and C. B. Wilson, Little Rock Gas and Fuel Company, was chairman of the southern sales group.

Each of these conferences incorporated a half day's meeting on home service subjects on the last day which proved an attractive feature for sales executives and managers as well as home service personnel.

The dominating theme apparent at each meeting was the need for more aggressive and modern sales methods to meet the rising tide of competition. A large part of each program was devoted to the three nation-wide sales contests sponsored by the American Gas Association with the cooperation of the manufacturers, designed to greatly increase the sale of gas ranges, water heaters and refrigerators. The range and water heater contests are already under way and the refrigeration campaign starts April 1.

In a vigorous keynote address before the Eastern Natural Gas Conference, February 6, C. E. Bennett, chairman of the Commercial Section, found many encouraging factors in the sales outlook for the gas industry. He based his optimism on the favorable advance of the industry in 1935, increased attention of executives to sales problems, superior gas equipment, more and better advertising, and cooperative selling activities. However, he warned that "our entire industry must be imbued with the necessity of sales effort." Mr. Bennett's

address is reproduced in full elsewhere in this issue of THE MONTHLY.

The subject of space heating sales, particularly in natural gas territory, received considerable attention at this conference, virtually a full afternoon session being devoted to it. The experience and possibilities of four companies with this type of business were discussed by H. B. Yost, Hope Natural Gas Company, Clarksburg, W. Va.; Paul Dunn, Fayette County Gas Company, Uniontown, Pa.; J. G. Werner, Equitable Gas Company, Pittsburgh, Pa.; and Frank D. Howell, Dominion Natural Gas Company, Ltd., Brantford, Ontario, Canada.

In 1935 the winter air conditioning industry increased its unit sales approximately 125 per cent over 1934, and approximately 3,000 per cent over 1931, according to George Boeddener, Fox Furnace Company, Elyria, Ohio, who addressed the eastern natural gas group, February 7. "The increase in 1936," Mr. Boeddener stated, "will be more than 100 per cent over 1935. Unless serious interruptions to general business should occur, it is my conservative opinion that by 1940, the winter air conditioning industry for new home construction and for replacement of old homes will dispose of 400,000 units per year."

That the National Housing Act opened up a tremendous potential market for the sale of gas appliances and that this market awaits only sales effort was brought out by Gail Sullivan, associate director of the Federal Housing Administration, Chicago,

Illinois, in the opening address before the Mid-West Sales Conference, February 13. "Since Title 1 of the Act has been in effect, up to the end of last month," he declared, "over \$277,000,000 worth of modernization loans have been insured by this Administration—representing over 781,009 individual applications for individual jobs. . . . Recently the amount of modernization loans insured each week has averaged around \$7,000,000."

Liberal sales policies, both as to terms to the purchaser and possible earnings to the salesmen, as well as cooperation with dealers, were advocated by several speakers at the Chicago meeting. Developments in rental purchase plans were discussed in papers by F. M. Rosenkrans, The Cities Service Gas Co., Kansas City, and H. S. Oyen, Central Illinois Electric and Gas Co., Rockford, Illinois, while the results of straight selling plans in the sale of water heaters were described by K. F. Dickinson, Public Service Company of Indiana. Delbert J. Duncan, Professor of Marketing and Management, School of Commerce, Northwestern University, Chicago, addressed the opening session on the subject of "Trends in Time Payment Selling."

The highlights of some of the papers presented at the Eastern Natural Gas and Mid-West Regional Gas Sales Conferences are brought out in the extracts below. Papers presented at the Southern-Southwestern conference will be discussed in the April issue of THE MONTHLY.

National Advertising

Abstract of address by Herman Russell, president, Rochester Gas & Electric Corp., Rochester, N. Y., before Eastern Natural Gas Sales Conference, February 6.

DURING the past few years we have heard a great deal about the "forgotten man." He has at last been identified. He is not the forlorn creature who arouses the solicitude of the politicians every year. He is not the fellow who disappeared from public view for years until he was discovered occupying a vice-presidency. The "forgotten man," in industry at least, is the gas man. He has allowed himself to be almost so completely forgotten by the home-making public of America that unless he speedily projects himself into the lime-light and determines to stay there, the gas

man will be relegated into an obscurity so dense that not even a wreath of neon lights around his neck will locate him.

Many men in the gas industry have been complaining of what they call unfair competition on the part of the electric industry. They point out exaggerated claims, inaccurate statements and general misrepresentation on the part of our brothers of the kilowatt kingdom. They bemoan the fact the electric industry is trying to crowd the gas industry out of the market. *But they are not doing anything to prevent it.* Crying about a situation that imperils the future progress of the industry may relieve the feelings of the weeper but it won't help one iota in regaining the ground that has

been lost, or in checking future forays from electric competition.

The gas industry needs an injection of the serum of national advertising. In 1934 the gas industry expended \$386,500 in national magazines while the electric industry invested \$3,225,000—or more than eight times as much. Is it to be wondered at, in the light of those comparative promotional activities—that the electric industry has made such heavy inroads on our potential market?

The proposal made at the A. G. A. Con-

vention in Chicago that the industry embark upon a cooperative national advertising campaign should have the support of every gas company in the country. A campaign of this kind is necessary if we are to save the market that remains. A half-hearted effort with a few companies participating and a small appropriation will accomplish little. We must have concerted, continuous and enthusiastic action. The national campaign is not designed to supplant local campaigns now being carried on by individual companies. It is intended to

support and strengthen them. A few companies here and there carrying on individual sporadic campaigns, cannot win this battle.

One important point that the natural gas industry should remember is this: While but one-third of the natural gas sold is used for domestic purposes such sales represent two-thirds of your total revenue. Certainly those figures indicate that you men should be vitally interested in extending the sale of your product for domestic uses and that this market is one worth fighting for.

Experiences in Space Heating Sales

Abstract of address by Frank D. Howell, Dominion Natural Gas Co., Ltd., Brantford, Ontario, Canada, before Eastern Natural Gas Sales Conference, February 7.

AGREAT many executives and sales managers in this part of the country have been of the impression that the circulating type heater was only adaptable to heating requirements in the milder climates of the southern portions of the continent, and as a consequence this valuable load builder has been completely ignored, or at best, in many instances, only half heartedly sold.

During the fall months of 1935 The Dominion-Republic Group of properties, comprising several small cities and towns in western New York and the southern portion of the Province of Ontario in Canada, featured a "Fifty-Day Home Comfort Sale" of heating appliances. In addition to the sale of 400 automatic house heating installations and 1,043 radiant heaters, 565 circulating type heaters were sold.

Fourteen of these heaters were placed in manufactured gas territory, the remaining 551 being sold in natural and mixed gas districts. Approximately 90% or 515 of these heaters had input ratings ranging from 40,000 to 60,000 B.t.u.

Of the total, 358 or 64% were to take care of the customers' full heating requirements. The remainder were auxiliary or additional to other heat. The estimated revenue from these 565 units is 33,000,000 cu.ft. annually. This, I consider, equivalent load to approximately 2,000 gas ranges or about 1,300 storage systems. Where a circulator is used for the customers' entire heating requirements two were found to be equivalent to one house heating installation. A survey of the heaters used as additional heat leads me to believe that three circulators will produce as much revenue as one average house heating installation.

Our canvass of several districts discloses that 20% to as high as 80% of the homes on our lines do not have central heating plants. An average of the districts checked would be about 45%. Coal and wood burning equipment manufacturers have for years and even today report a good coal and wood business in these areas.

It was interesting to note that of the 565 only 89 units replaced gas equipment, 383 replaced coal, 67 were new units, 8 replaced oil and 18 wood. These figures would indicate that the greatest potential market is the domestic field, which, after all, is the backbone of the gas business. However, we should not overlook churches, lodge rooms, garages,

stores, factories and apartments, especially those on second floors or higher where central heating plant is impossible. Also, in some instances large hard-to-heat buildings may often be heated satisfactorily by a number of circulating heaters at a smaller investment and more flexibility than with a central heating system. Eighty-five per cent of the circulators we sold replaced competitive fuels, and we estimate will account for 29,000,000 cu.ft. of new revenue.

Effect of National Range Contest on Sales

Abstract of address by C. R. Henderson, Washtenaw Gas Company, Ann Arbor, Mich., before Mid-West Sales Conference, February 13.

ANN ARBOR is a town of approximately 26,000 population, and in addition has 9,000 students who are with us nine months of the year. The city is not an industrial one, although we have several sizeable manufacturing plants which give considerable employment. The University might be termed our "Chief Industry."

Our company had in use at the end of the year 1935, approximately 9,000 meters, of which 8,300 are classed as domestic. The community is also being served by a power company which has always had a splendid record together with a very aggressive merchandising policy. For the past three years they have pushed the sale of electric ranges intensively. Our most vulnerable spot was in the homes of our customers who had gas ranges that were ten or more years old. It was easy in such homes for our electrical friends to present their new piece of equipment, with what seemed like new ideas in cooking, to the owner of the old obsolete, antiquated gas range. These comparisons soon made their appeal. Their advertising told an interesting story that would create the interest of the prospective buyer. I think, however, that the enthusiastic imagination of the advertiser got the better of him in preventing the facts about electrical cooking as compared with other methods.

Our problem, therefore, was to replace every antiquated gas range with a modern gas appliance and we have been at it intensively now for several years, and of course we intend to keep going after these replacements, for there lies the retention of 75% of our business, which we have no intention of letting our electrical friends have as we know that gas can do that job of cooking better than any other type of fuel. Very satisfactory results were accomplished during 1935 and we have every hope that this year's efforts will be even better.

On previous campaigns it was discovered that often the amount of the down payment and the monthly payments were stumbling blocks in closing many sales. In order to combat that situation, a down payment of \$1.75 was decided on to bring in a larger group of buyers, with an additional inducement for cash. Two years was allowed to complete the balance of the contract which made the monthly payments relatively small. This worked fine and up to date we have yet to make the first repossession on any stove sold last spring because of inability to pay the monthly installment.

Dealer cooperation was encouraged by absorbing part of the allowance for the old stove. Also any ranges that were sold by dealers were connected free of charge by the gas company. However, sales made by dealers have played a very small part in our total sales during the year.

The combination of all these things

stimulated the sales department for a great "Round-up" of old ranges. As a result of the 60-day campaign we sold 208 ranges, all equipped with regulators. These were quality ranges, in that the average selling price of all ranges sold was \$79 before allowances. This was the best job of selling we have ever done and it convinced us that sales could be made, and that people were ready to buy the modern gas range if their interest could be aroused and if they were made to appreciate the fact that the modern gas range could not be equalled in cost, style or efficiency, by any other modern cooking equipment.

The interest displayed by the Range Committee of the American Gas Association certainly added zest to our own program. The desire of an enthusiastic sales department and employees to keep their company out in front, as to the number of ranges sold, was certainly a great inspiration, and helped put our company well near the top among the 75 companies represented in our division of the contest.

In September another 60-day contest was carried through with equally good results and as much enthusiasm. The general program was the same except we did not call it a "Round-up." The contents of our advertising were much the same only dressed up in a different form.

In December we featured a special Christmas offer by giving every customer who purchased a new modern cabinet range, a turkey for their Christmas dinner.

ner, in addition to an allowance for the old range. This plan also brought splendid results although the idea is not new. Placards were put in the local butcher shops featuring the plan and they naturally liked the idea since we gave the customer an order for a turkey at their own meat market, rather than trying to deal with one single shop.

The results of this extensive effort on ranges throughout the year brought the best sales in the history of the company. We thought that the year 1934 was a good year, when we sold, by our constant pushing, almost as many ranges as were sold any year during the most prosperous years, but 1935 was a record. We sold over 500 modern gas ranges, an increase of 49% over 1934, and we expect to beat that record this year as there are still plenty of old ranges to be replaced. A modern gas range in the home settles that customer from wanting any other type of equipment, because he can't find anything better. There were no new main extensions for new business.

In between the range campaigns, effort was devoted to the sale of automatic storage water heaters and gas refrigerators with success equally as good as with ranges.

The year's activity resulted in almost doubling gross sales of 1934. Gross sales for 1935 were \$5.76 per domestic meter and we firmly believe the momentum created by the American Gas Association contest last spring sent us on our way.

the normal amount required for cooking purposes only. On these same cards the new water heating rate was applied to the consumptions listed for each month. Cards of this description were completed first for all customers using automatic water heaters. The salesmen called on these customers and showed them how much of a saving the new water heater rate made to them as individuals and also showed them how much more water could be heated without increasing the gas bills beyond the amount they had been paying. Every possible effort was made to break down the all too common belief that the cost of gas service was too high. The salesmen also endeavored to secure names of friends of these customers who might be interested in the use of an automatic water heater. This survey of users of automatic water heaters resulted in the placing in service of a number of heaters that had been disconnected, usually because the customer had felt the operating cost was too high.

During the time the salesmen were contacting automatic water heater users, additional cards were prepared from the records of domestic gas customers not using automatic heaters. These cards, when completed, were sorted into groups according to the average monthly consumptions such as 2,000 to 3,000 cu.ft. use; 3,000 to 4,000 cu.ft. use; 4,000 to 5,000 cu.ft. use and above 5,000 cu.ft. These cards so classified formed the basis for sales work on water heaters for the year 1935. The salesmen were able to talk to each customer in detail about the possibilities of using an automatic water heater and to determine with reasonable accuracy what the cost of this service would be. When a sale of an automatic water heater was made the monthly consumption was continued on the card so that a running record was at all times available, both for statistical purposes of the company and to advise the customer should the necessity arise.

During the year 1935, 283 automatic water heaters were sold in Lafayette by the company. Practically all of these sales were made from May to December. A quota of approximately 5% of the domestic meters was the goal set, however, this was not fully realized. The actual results indicate about 4.2%.

The records of the company show that there was an increase in sales to domestic customers (not including gas home heating users) of 5,200,000 cu.ft. from June to December, 1935, inclusive, as compared to the same period in 1934. This is an average of 743,000 cu.ft. increase per month. Assuming that each of the 283 water heaters sold increased the consumption of gas 1,690 cu.ft. per month, a total increase of 478,000 cu.ft. would be accounted for.

The records also show that 120 of the 283 heaters sold in 1935 were the result of prospects given to the sales

A Straight Selling Plan for Water Heaters

Abstract of address by K. F. Dickinson, Public Service Company of Indiana, Lafayette, Ind., before Mid-West Sales Conference, February 14.

ABOUT one year ago the management of the Public Service Company of Indiana decided to try to do something about the trend of gas sales to domestic customers which trend had been downward during the recent depression years. It was the consensus of all concerned that automatic gas water heaters offered one of the best mediums for domestic gas load building and that a volume job of selling could be done with the proper tools to work with, namely: a promotional type of gas rate; a liberal sales policy both as to terms to the purchaser and possible earnings to the salesmen; the proper tie-in with plumbers and dealers; a well-balanced advertising program; a bonus allowance for prospects turned in by employees other than salesmen which prospects resulted in sales, and the intelligent cooperation on the part of the manufacturer of the heater selected to sell.

It was decided to select the Lafayette Division of the company as a proving ground for experiments on the pos-

sibilities of load building through the sale of automatic water heaters and also other load building equipment such as gas refrigerators, house heating and space heating. There are 6,900 domestic customers in Lafayette with a population of 31,675. Lafayette proper depends primarily on the surrounding rural trade for its general business. However, there are a number of prosperous industries diversified sufficiently to create a sound labor pay roll.

In Lafayette, the first step considered necessary was selling, or better, re-selling the company local organization on the possibilities of gas sales in the home through the use of automatic water heaters and other load building equipment. A series of meetings were held both with the sales force and the balance of the organization through which general understanding of the rates and sales policies was accomplished.

The next step was the tabulating on cards of the actual consumption and billing of all domestic customers for a period of 12 months where consumptions were sufficient to indicate a use of gas above

(Continued on page 119)

Industrial Gas Section

Charles W. Gale, Chairman

Eugene D. Milener, Secretary

Ralph L. Manier, Vice-Chairman

Industrial Gas Sales Group To Meet in Detroit



Charles W. Gale

The first industrial gas sales conference to be held under the auspices of the Industrial Gas Section in a number of years will take place at Hotel Statler, Detroit, Michigan, Tuesday and Wednesday, March 10 and 11. The two-day conference will consist of one day devoted to papers and discussions, and one day devoted to an inspection trip of new and outstanding industrial gas installations in some of America's most advanced factories.

The dual theme of Tuesday's sessions will be first, sales, and second, new types of equipment that are now available to be sold. Each speaker on the program is an authority on the subject assigned to him. The opportunity for ample discussion has been provided. There has yet to be a similar opportunity to get so much first-hand information on the new technique in selling and in applying industrial gas.

Wednesday's inspection trip will take the entire day. As one industrial gas executive expressed it: "This will be an opportunity to see in operation the kind of industrial gas equipment we will all be selling the rest of this year, next year and the year after." Detroit has been the proving ground for the successful introduction of more new types of industrial gas apparatus than any other city.

Each salesman, engineer and executive who attends this conference will be well repaid. Hotel reservations should be made directly with Hotel Statler, Detroit, Michigan.

Following is the complete program:

Tuesday, March 10
9:30 A.M.

MORNING SESSION

Presiding officer, Charles W. Gale, chairman, Industrial Gas Section.

Selling Industrial Gas to Recently Developed New Heat Markets—Frank T. Rainey, new business manager, The Ohio Fuel Gas Company, Columbus, Ohio.

What Gas Has To Offer the Ceramic Industry Today—T. E. Wood, manager, industrial gas department, The Manufacturers Light & Heat Company, Pittsburgh, Pennsylvania.

Effective Methods of Handling Test and Trial Installations—F. B. Jones, director of industrial gas sales, Equitable Gas Company, Pittsburgh, Pennsylvania.

Discussions by manufacturers and gas utility men.

12:30 P.M.
LUNCHEON

Mr. Gale, presiding.

Executive Address—1:15 P.M.

The Business Side of Industrial Gas—Claude A. Welch, assistant supt., Chevrolet Motor Company, Detroit, Mich.

1:45 P.M.
AFTERNOON SESSION

Presiding officer, Ralph L. Manier, vice-chairman, Industrial Gas Section.

What Are the New Business Possibilities of a Greater Use of Convection Gas Heating in Industry?—Charles E. Buysse, president, Industrial Heating Equipment Company, Detroit, Michigan.

New Developments in the Brass and Copper Industry and the Part Gas Is To Play in This Industry—W. W. Young, Jr., industrial gas engineer, Connecticut Light & Power Company, Waterbury, Connecticut.

How Atmosphere Furnaces Offer a New and Effective Tool for Greater Gas Sales—E. G. de Coriolis, research director, Surface Combustion Corporation, Toledo, Ohio.

Replacing Competitive Fuels with Gas, as Exemplified in the Automobile Industry—Hale A. Clark, industrial engineer, Detroit City Gas Company, Detroit, Michigan.

Discussions by manufacturers and gas utility men.

Meeting Managing Committee—Industrial Gas Section—5:00-6:00 P.M.

Wednesday, March 11

The second day will be devoted entirely to inspecting the newer types of industrial gas installations in representative Detroit industrial plants.

Busses Start from Hotel Statler—9:00 A.M.
Arrive Chevrolet Motor Company Plant
—9:30 A.M.

Chevrolet Motor Company

This plant, which makes many Chevrolet parts, is one of the largest and most interesting examples in the country of up-to-date applications of industrial gas. Gas is intensively used in an unusually wide variety of manufacturing

processes. Conditions of high speed production, that require the finest in accuracy and control of heating operations, will be seen here. Many gas furnaces, large and small, are in operation.

Leave Chevrolet Motor Company Plant—
12:30 P.M.

Luncheon—12:45 P.M. to 1:30 P.M.

Arrive Detroit Steel Products Company—
2:00 P.M.

Detroit Steel Products Company.

This large plant has recently been equipped throughout with new gas furnaces of advanced design that have replaced oil. All the latest methods of applying industrial gas will be observed here under one roof. See gas hot tubes, walking beams, prepared atmospheres, forging, convection gas heat air tempering and other industrial gas operations on a vast scale.

Leave Detroit Steel Products Company—
3:30 P.M.

Arrive Detroit-Michigan Stove Works—
3:45 P.M.

Detroit-Michigan Stove Works.

The large enameling plant at these works has been the field station where gas hot tubes, or radiant tubes, have been successfully developed and applied to sheet steel and cast iron enameling. The full size research furnace will be inspected as will also other types of gas enameling furnaces, both box and continuous. Many other modern applications of industrial gas in a large stove plant will be seen.

Leave Detroit-Michigan Stove Works—
5:00 P.M.

Busses Return to Hotel Statler—5:30 P.M.

Process Air Conditioning Committee To Meet

L. A. BICKEL, secretary of the Dallas Gas Company and chairman of the Committee on Process and Comfort Air Conditioning of the Industrial Gas Section, will preside at the meeting of the Committee at the Hotel Statler, Detroit, Mich., Monday, March 9, at 9:30 A.M.

At this meeting reports will be checked on the progress being made in penetrating important air conditioning fields other than residential. Assignments of specialized work for individual committee members for the balance of the Association year will be made. The commit-

tee is composed of gas utility men and manufacturers who have been associated with gas summer air conditioning since its inception.

All gas men and manufacturers inter-

ested in air conditioning in factories and commercial establishments are welcome to attend this meeting, which will be held the day before the Industrial Gas Sales Conference and inspection trip.

Gas Air Conditioning Featured at Heating Exposition



Gas industry display at heating and ventilating show

By HARRY SWENSON

Manager, Display Dept., The Peoples Gas Light & Coke Co.

WITH a registered attendance of more than 30,000 people the Fourth International Heating and Ventilating Exposition closed its five-day exhibit at the new International Amphitheatre in Chicago on January 31.

The serious interest in the exposition can be gauged when this large number of people could be drawn to it during the most severe cold snap in years.

The gas industry's exhibit, sponsored by the American-Gas Association and The Peoples Gas Light and Coke Company, was an object of much favorable comment. Spacious by design and location it showed no actual equipment but was a graphic display designed to emphasize Gas as the logical fuel for heating and year 'round air-conditioning.

Prompted by the belief that the mechanics of air-conditioning is only vaguely understood by the average man and that obscurity prevails as to what can rightly be termed air conditioning, the exhibit by means of graphs, illustrations and photographs, clearly illustrated the subject.

An outstanding part of it was a chart showing, in a way that could easily be comprehended, the cycle of operation in a gas air conditioning job. As evidence of the acceptance of this equipment a number of photographs with creditable installations of the unit were shown.

Sales engineers from the space heating division of The Peoples Gas Light and Coke Company were in attendance to answer questions. The exhibit was designed by the display department of The Peoples Gas Light and Coke Company under the direction of D. W. Chapman, chairman of the Display and Contact Committee Industrial Gas Section, which committee supervised the exhibit for the Commercial Section of the Association.

A number of manufacturers of gas heating and air conditioning equipment, as well as makers of units using competitive fuels, were represented by interesting and exceptional displays.

In general, a sounder sales psychology directed the presentation of the various exhibits this year and the observer could note that more intelligent efforts are being made to make these annual displays constructive and profitable to both public and exhibitors.

Managing Committee to Meet in Detroit

THE Managing Committee of the Industrial Gas Section will meet at the Hotel Statler, Detroit, Michigan, immediately following the close of the afternoon session of the Industrial Gas Sales Conference, Tuesday, March 10. The meeting will be limited to one hour. All members of the committee are requested to be present and take part in the meeting.

News of INDUSTRIAL GAS PUBLICITY

Among the interesting articles prepared under the auspices of the Publicity Committee of the Industrial Gas Section and which have appeared in prominent industrial magazines recently are those described below.

♦

How natural gas can be quickly changed into water gas so as to meet the various code requirements on forge welding of pressure vessels is told in the February 10 issue of *Steel*. It is known as transmuted gas. This article, "Mechanized Forge Welding of Tanks," treats of methods of heating the edges of the steel plates with pocket size furnaces using either water gas or natural gas, also of the power hammers, jigs and fixtures incident to their operation and which were developed by the Columbian Boiler Co. After fabrication these tanks or vessels are annealed all over by placing them in pit type furnaces, equipped with gas burners and automatic temperature controls.

For welding many of its products, this company uses natural gas in its natural state, but in order to conform to various regulations on other items it converts the natural gas to blue water gas by proportioning with steam, with the result that the products of combustion are identical with those obtained when using water gas alone and contain 45 to 55% hydrogen. In this way water gas is produced much more cheaply than by burning coal.

♦

"From Ingot to Sheet in Twelve Minutes at the Ford Plant" is the title of an article appearing in the January issue of *Industrial Heating*. Herein is described the continuous type strip or sheet mill, the most revolutionary and far reaching improvement in steel mill practice in more than 50 years. Its capacity is 25% greater than that of any other existing mill, while at the same time its cost of operation is 50% lower. Gas is employed in the open hearth furnaces, the soaking pits and the three big slab heating furnaces.

♦

LARGE and heavy pipe made to withstand high pressures and high temperatures is usually made up with flanges on the ends, and the various lengths are bolted together with gaskets between. The forging of these flanges requires special furnaces and forging machines or power presses, and the method is known as Van Stoning. This type of joint is used universally throughout the power and refinery industries.

"Van Stoning and Pipe Bending," *The Iron Age*, February 6, is the title of an article dealing at some length with this subject and describing the two types of gas-fired furnaces employed. This also appeared in the January issue of *Heat Treating and Forging*.

Technical Section

F. A. Lydecker, Chairman

H. W. Hartman, Secretary

Martin I. Mix, Vice-Chairman

Distribution Conference at Memphis To Consider Important Problems

MEMPHIS, TENNESSEE, will be the focal point for both natural and manufactured gas distribution engineers when the Distribution Conference convenes, April 6, 7 and 8. Last year more than 400 engineers and others attended a lively and instructive meeting in Cleveland and it is expected that an even greater number will be present for the comprehensive program arranged for this meeting. Hotel Peabody has been selected as headquarters for the conference.

One of the most popular innovations at the 1935 conference was the group of individual dinner conferences at which a variety of problems were discussed informally. This feature has been retained and enlarged for this year's meeting and five luncheon sessions will take place simultaneously. This important event and some of the subjects to be discussed are more fully outlined in the article below by D. P. Hartson, chairman of the Luncheon Conference Committee.

To Discuss Natural Gas Extension

In view of the widespread extension of natural gas into many new territories, one of the most worthwhile and interesting events on the program is expected to be an address by an outstanding engineer who has been intimately connected with this development. A broad picture of conditions which this address will present should prove of particular value to distribution engineers at this time.

Another recent development, the formation of the Association of Gas Appliance and Equipment Manufacturers, will receive consideration on the program. What will be the new association's policies? In what way can the American Gas Association cooperate? Where do the distribution engineers fit into the picture? These are only a few of the questions which will be answered by a prominent manufacturer who has been actively connected with the organization of the new association.

The use of liquids for sealing B & S joints has been given national publicity in the past few months, and many wish to know the facts back of the advertising. G. E. Hitz, who originally developed this method and has used it for a number of years, will present a paper which includes not only his own experience but laboratory and field tests made at various locations.

As with the poor, we apparently al-

By ERICK LARSON

Long Island Lighting Company,
New York, N. Y.

ways have corrosion with us. Lee Holtz, general superintendent of manufacture and distribution of the Southern California Gas Company, will present a closeup of practices on the Pacific Coast, where progress in mitigating corrosion has been rapid and much of it fostered by his own foresight and initiative. Included in his remarks will be information regarding the use of Cellophane and Kodapack for wrapping buried lines.

J. R. McQueen of the Washington Gas Light Company has consented to provide additional information on the education of employees by outlining his company's own and other practices in the education of the men comprising maintenance and construction crews. This information will be a valuable contribution to a subject which is of wide interest today.

C. H. Waring of Kansas City will present a paper on equipment and methods used in leak detection. Development in the methods of repairing leaks has progressed more rapidly than detection.

Mr. Waring will bring us up-to-the-minute information on methods and recent developments which have proved effective in detecting leaks.

The report of the Pipe Coating and Corrosion Subcommittee by Charles Turner of Cleveland, chairman, will call attention to research on many phases of the subject which has resulted in definite recommendations. It is of vital importance to determine what the future of this work should be and a real discussion of this problem is anticipated.

Judging from the report of the Meter Subcommittee made by David Allen, chairman, last year, we again look forward to a report replete with information. The Meter Subcommittee has been particularly active. H. B. Andersen of The Philadelphia Gas Works Company will submit a paper on Meter Design, following up his initial paper on this subject presented last year.

The Subcommittee on Pipe Joints and Materials under L. W. Tuttle has secured considerable information on such subjects as expansion of mains, expansion joints, metals other than iron for pipe, and other vital subjects on which a report will be made at the conference.

Distribution Committee To Hold Five Luncheon Conferences

By D. P. HARTSON

Equitable Gas Company, Pittsburgh, Pa.

AT the 1935 Distribution Committee Conference the dinner conference idea played such a prominent part that there was no question as to whether the 1936 conference should continue this innovation. Small group conferences have become a definite part of the annual Distribution get-together.

The conferences will meet for luncheon at noon and will devote the entire afternoon of the first day, April 6, if necessary, to allow each member to get off his chest any new idea, plan or what-not regarding the many subjects to be brought up. The groups will not be large and each member will have time to voice his own ideas and opinions. No stenographic

notes will be kept, so there should be no hesitation about speaking up.

There will be five conferences and it will, of course, be impossible for any member to attend more than one conference. Realizing that practically every one would like to know something of what goes on at each conference, the committee has arranged for one entire general session to review the subjects brought up in the five individual conferences. This will be held on the morning of the last day, April 8, when the chairman of each of the luncheon conferences will devote considerable time to reviewing the many items which were brought up during his conference on Monday. This will be a very interesting session and will give further opportunity for ample discussion of any moot question. Each of the conferences will be in

charge of an experienced distribution man.

Following is a brief summary of the subjects, among many others, to be considered by the individual conferences:

Fred M. Goodwin, of the Boston Consolidated Gas Company, will act as chairman of a conference discussing "Portable Equipment." This conference will include a dissemination of the experiences of various distribution men with new equipment which has been developed within the last few years. These items of equipment include air compressors, individual power units, power take-off units, emergency lighting units, ventilating blowers, air hammers, caulking tools and rammers, portable power drilling and tapping machines, boring equipment used to avoid breaking pavement, safety problems brought up by the use of portable equipment, etc.

J. D. Von Maur, of the Consumers' Gas Company of Toronto, serves as chairman of the luncheon conference on "Meters." Besides the old questions which never have been and probably never will be settled, there will be considerable discussion regarding meter diaphragms, new materials used in meter valves, what's new in meter design? what should we do with meters not in use? when and under what conditions should they be removed? what is the economical scrapping age for old meters? how do you combat irregularities in connection with meter registration? what of standardization? etc., etc.

Appliance Servicing Topic

One of the increasingly important items in gas distribution is the matter of "Appliance Servicing." This discussion group will be handled by M. I. Mix, of The Peoples Gas Light and Coke Company, Chicago. The subjects which will be discussed in this group are many and varied, ranging all the way from how much free service we should do on various types of equipment, how we should properly look after house heating appliances, experience of various companies with thermostatic pilot stoppages, the education of service men, transportation equipment used by service men, the use of flexible personnel in meeting peak demands for servicing, and standards of servicing set by various companies.

H. E. Bates, of The Peoples Gas Light and Coke Company, Chicago, will act as chairman of the group which will discuss "Regulators, Automatic Control, Etc." This subject will cover district regulators, house regulators, automatic loading devices, limiting devices, remote control, pressure recording both local and distant, design of manholes and other regulating housing, manhole ventilation, etc.

Another very important conference will be held on "Pipe." This broad subject will cover a discussion of the uses of the newer mechanical joints, the work which has been done in developing sealing materials for cast-iron bell and spigot joints, experiences with the use of copper pipe, the latest "dope" on coating, discussion of electrolysis, protection of mains and services in various places, what should be done regarding inspection and repair of main line valves, experience of various companies with different types of valves

and their lubrication, and also a discussion of what has been developed in expansion joints for gas distribution lines on bridges and exposed places.

It would be impossible to list all of the subjects which may come up for discussion at these luncheon conferences. There is no set program and any of the members may bring up for discussion a subject which may be interesting and instructive to the others. As was the case in 1935, the conferences will be made as informal as possible so that there should be no embarrassment on the part of the fellow who is "unaccustomed to public speaking."

Don't forget to get your luncheon conference ticket on April 6 when you arrive at Memphis and register.

Gas Public Lighting Replaces Electric

Road safety at lower cost has prompted the City Council of Harrow, England, to replace 1,200 electric lamps with new gas lighting equipment. The council has decided that only gas shall be used for public lighting in its area and has signed a seven-year contract for that purpose.

This is not the only instance of recent contracts being awarded to gas lighting in England where gas is still a considerable factor in that field. The gas company at Walton-on-Thames recently obtained a five-year contract for lighting parts of the community and Wanstead-Woodford Urban District Council has entered into a seven-year agreement with the Gas Light and Coke Company for a renewal of the public lighting by gas in its area. Poster and building flood lighting by gas also have long been popular in England.

Stuckenholz and Hill Take New Posts

CASPER S. STUCKENHOLT, assistant chief engineer of the American Gas Association Testing Laboratories and ten-year veteran of that institution, has resigned to accept the post of development and contact engineer with the W. J. Schoenberger Company, Cleveland, Ohio, one of the largest manufacturers of non-ferrous valves and fittings in the gas appliance field. He began his new duties on February 1, 1936.

Mr. Stuckenholz had been associated with the Testing Laboratories for exactly ten years February 1, during which time he developed an acquaintanceship and respect among appliance and necessary manufacturers throughout the country which is rarely duplicated. He graduated from Case School of Applied Science, Cleveland, Ohio, Department of Mechanical Engineering in 1923, and served with the McKinney Steel Company, Cleveland, prior to joining the Laboratories' staff in 1926.

Also last month Harold J. Hill, testing and inspection engineer with the Laboratories since 1930 and alumnus of Case (1928), resigned to join the Cleveland Heater Company, Cleveland, in the capacity of appliance development engineer. Mr. Hill has served in testing, inspection, and research departments of the Laboratories in addition to having had experience with the General Motors Research Laboratories.

Recipe Book Popular in Mystery Chef Program

PUBLIC interest in the Mystery Chef radio program and particularly in the 100-page recipe book entitled "Be an Artist at the Gas Range" which is offered free to radio listeners, is growing rapidly as the program approaches its third month on the air. In less than 2½ months of actual broadcasting, nearly 500,000 customers of participating gas companies had called in person for the book at company offices. A second printing of 500,000 copies is now on the presses.

Two additional companies have joined the network program which extends from Washington, D. C., to Portland, Maine, and from New York City to Buffalo. These are the Greenfield Gas Light Company, Greenfield, Mass., and the Central Vermont Public Service Corp., Rutland, Vermont. Total participants in the present broadcasting area number 99. A number of companies outside this area are interested in taking on electrical transcriptions and it is expected that companies at Richmond, Va., and at Nashville, Knoxville, Chattanooga, and Memphis, Tennessee, soon will use transcriptions over their local stations.

SELLING PLAN FOR WATER HEATERS

(Continued from page 115)

department from non-sales employees of the company. The gas service men and meter readers accounted for the majority of such prospects. However, office employees, stores department employees, and production department employees also participated. The sales from prospects of the non-sales organization represent 42 per cent of the total sales made and indicates in our opinion a good cooperative situation so essential to the success of any utility company volume selling program.

As of January 1, 1936, there were 1,191 automatic water heaters installed on the company system in Lafayette, a saturation of 17%. We believe that during the year 1936 by the continuation of the general sales program used during 1935 and with the cooperation of all employees and an unremitting sales supervision, a quota of 5% of the domestic meters can be accomplished.

Personnel Service

SERVICES OFFERED

Engineer experienced in following: Operation—coal and water gas plants—distribution and service department. Design—several water gas plants with equipment—coal gas condensing and purification equipment—high and low distribution systems. Construction—complete water and coal gas plants—remodeling plants; distribution. 998.

Research Chemist—Several years' experience in a coke plant together with research and development work for a leading research corporation. Familiar with analyses of by-products and routine analytical methods. Now employed but desire a change. 990.

Gas Engineer desires new connection. Graduate chemical engineer. Fifteen years' experience in design, construction, operation and maintenance of Water Gas Plants and high-, medium- and low-pressure distribution systems. Able assistant or manager. 992.

Gas range and Appliance salesman seeking substantial connection. Thoroughly experienced and capable of handling any territory. Have the ability to supervise and perform sales promotion duties. Will locate anywhere, no preference as to territory, interested in salary and expenses or drawing account, commission and expenses. 993.

Gas Engineer. Ten years operating all types of plants, various capacities from cadet to superintendent. Six years, gas manufacturing equipment company, last three chief engineer. Three years with public service commission, valuation engineer. Experience ideal for holding or operating company engineer. 994.

Sales Manager—Sales Promotion Manager—Salesman—competent, aggressive, experienced—for gas company or manufacturer wanting successful sales. Appliances, gas merchandise, gas distribution supplies, plumbing, heating specialties. 12 years' effective selling, promoting, advertising, managing volume sales for leading specialty manufacturers. National gas company executive, jobber and consumer contacts. 995.

Industrial Sales Engineer:—Several years' experience in supervising the sales, installations and maintenance of house heating, industrial steam and water heating. Special training and knowledge derived from long experience with eastern utility companies will be a great asset to any corporation. 997.

Gas minded, practice trained water gas plant man (39). Experience ranged from sole operator 4-foot plant to assistant superintendent of a 3½ million daily plant. Also experienced as general foreman of distribution construction, mains and services. 999.

Energetic efficiency gas man with twenty years' experience, operating and managing, desires change from present position, to that of manager or superintendent of medium sized utility or assistant to manager of large one. Knowledge of sales problems. Single, college, go anywhere. (39). 1000.

Gas Technologist—Young man (34) with broad experience in gas industry as manufacturing and distribution engineer, operator and designer of equipment, desires responsible position where valuable engineering and business experience can be put to use. 1001.

Sales Engineer, thoroughly experienced in new business operations of gas utility, domestic appliances, house heating and industrial application, wants position where there is chance for advancement. 1002.

Engineer (27) B. S. Chemical Engineering 1932; 1-year graduate study. Experience: 18 months automotive industry; 3 months gas pipeline; 22 months gas appliance industry where now employed. 1003.

Sales Supervisor or Sales Engineer. Have had considerable experience in industrial, commercial, house heating and domestic sales work. Also am familiar with design and installation of equipment. Have worked with manufactured and natural gases. 1004.

Kitchen Equipment Salesman. Desires connection with well-established hotel and restaurant kitchen equipment house. Twenty-five years' experience designing and selling kitchen equipment in and around New York City, through architects and builders. Thorougly familiar with all gas appliances for heavy duty work in kitchens. 1005.

SERVICES OFFERED

Thoroughly seasoned and competent sales manager able to handle any or all divisions of commercial and public relations departments. Several outstanding records in water heating, commercial and industrial work. Can get volume business in any territory and produce satisfying results. 1006.

Auditor: Age 30, University graduate in 1927, accounting major. Three years' public accounting on public utility staff, three years with large holding corporation, supervising property accounting for thirty-two gas properties. Assistant general auditor. 1007.

Engineer with utility accounting experience. B. S., M. E. E.; postgraduate work. Three years' research assistant, National Industrial Conference Board. Twelve years' gas and electric utility experience, rates, franchises, cost allocations, contracts, research in utility management problems. Experience with P. S. C. accounting. (N. Y.). 1008.

Practical and technical gas engineer—thirteen years' experience design, layout, development, estimating, advertising, selling and appraisal of gas plants and equipment. Also competent structural design. 1010.

Graduate Engineer with twelve years' experience in the gas business; assistant superintendent of large water gas plant, estimating costs for construction and alteration of coke and gas plants, physical inventories and appraisals, desires position in operating or construction department, married, (35). 1011.

Practical, technically trained man seeks opportunity in industrial gas burner and appliance field with manufacturer or utility. Experience includes making, testing, developing industrial burners and appliances; traveled several years supervising installations. Likes to travel, will go anywhere. Last five years industrial salesman. 1013.

Semi-Senior Accountant for three years—public utility staff—accounting firm, then three years as special accountant with large electric and gas corporation until they went into receivership. Auditor of disbursements for large corporation board, thorough experience in all departments. (30). 1014.

Engineer—Broad experience. Three years in valuation—appraisals, reports, and property records. Three years in heating and ventilating—research, design and installation. Supervision of coal and water gas production and distribution. Design, construction, estimates, expert operation and research. Graduate; advanced engineering degree. 1015.

Utility Executive available: have had 25 years' experience in all branches of utility business, organization, financing, construction, operation and utilization. Recently vice-president in charge of sales of large holding company, selling gas, electricity, water, ice, fuel, merchandise and securities through local operating companies. 1016.

Engineer, Graduate M. E. 20 years' experience in electric utility, manufactured and natural gas, appraisal valuations, previously manager, general superintendent and engineer for operating company, temporarily employed. 1018.

Insurance Specialist: graduate engineer, experienced utilities, operating and holding company, meter reader to junior executive; now employed, specialized last five years in producing large economies in insurance protection of all kinds for utility companies. Available special reports or full time. 1019.

Fifteen years, practically all spent in the design, construction, and appraisal of manufactured gas plants and distribution systems have suitably fitted an engineering graduate for twenty or more additional years of conscientious, competent service to the employer who can offer a future. Available now. 1020.

Geologist, valuation engineer—University education; many years' experience with largest producer in Appalachian fields, know producing sands, depths, rock pressures, depletion. Also valuation expert on mechanical equipment inventory for gas plants. Statistician and chart experience. (38). 1021.

Gas Engineer, now employed, desires position as manager, industrial gas engineer, or distribution engineer. Ten years' experience in all branches of the manufactured gas business, including three years as industrial gas sales engineer; some experience with natural gas. Graduate (M.E.); (31). 1022.

SERVICES OFFERED

Utilization—testing—sales—installation—of gas appliances. Long experience in house heating, water heating, hotel and restaurant, industrial work; in metropolitan New York and vicinity. Utility or manufacturer. 1023.

Engineer-Accountant graduate engineer, sixteen years' experience preparing, presenting valuations and original cost analyses of tangible and intangible property (electric, manufactured and natural gas) for reorganization, sale, recapitalization, insurance, franchise, rates and commissioner's review. Prepared rate studies and presented rate schedules. Set up fixed capital records. 1024.

Gas Analyst—Seven years' experience in research and gas industry. Thoroughly qualified in every phase and mode of gas analyses, including Podbielski fractionation. Now in charge of gas laboratory. 1025.

Auditor—Office Manager. Former office manager of 50,000 account gas company desires opening anywhere. Experience covers fifteen years on all utility clerical and accounting functions. At present temporarily employed utility auditing by well-known public accounting firm. (32) Married. 1027.

Sales Supervisor. Specialist in introduction complete line of gas appliances converting other fuel users to enthusiastic gas consumers. Capable directing, supervising, sales organization. 14 years' experience gas merchandising, customer contact, settling complaints, claims; displays, exhibitions, home beautiful shows and general advertising. Employed, available 30 days, have car. 1028.

Well known engineer experienced in construction, design, engineering, operation, and management, now available on daily, weekly, monthly or yearly basis for advice, studies and reports. Small or large companies. Will collaborate with engineers and managers engaged in making reports thus making steady progress and early completion of such reports possible. 1029.

Sales Supervisor. Fifteen years' experience in appliances familiar with every phase of utility merchandising—particularly strong in gas range, water heaters and refrigeration campaigns. Well versed in househeating and combination property direction. Will take over run down property to demonstrate ability. Married. (35). 1030.

Small Plant Manager—energetic, efficient in small water gas plants. Have made change-over coal gas to water gas—water gas to butane; operated butane plant. Understand manufacturing, distribution, high-low pressure; know what it means to maintain friendly public relations. Interested in showing results in operating and sales. 1031.

Sales Engineer or executive have specialized in the sale and promotion of automatic gas water heaters, gas ranges and other gas appliances for over a period of twenty years. Planned and managed many sales campaigns; extensive acquaintance with utility merchandising managers and plumbing supply jobbers. Willing to travel. 1032.

Industrial Gas Representative, (38), Married, ten years' experience in industrial, house-heating, waterheating, hotel and restaurant and promotional work, with special training as cadet engineer in gas industry, special course in metallurgy, special training in electrical equipment and B. S. and M. S. degrees, desires position in sales end. 1033.

Sales. Seasoned and competent; gas industry eleven years manufacturers man (ranges) selling utilities acquiring distributors, etc., traveled Eastern states. Has trained and handled salesmen. Promotional meetings. Experienced marketing. Good contacts and record. Desires manufacturer or utility connection. American (37) Single—Well educated. 1034.

POSITIONS OPEN

Pennsylvania Utility requires experienced **Sales Engineers** to supervise commercial, industrial and gas house heating sales department. Must be capable of directing successful sales activity. Excellent opportunity. Application must state nationality, age, education and experience and must be accompanied by photograph of applicant. 1035.

Advisory Council

H. C. ABELL.....	New Orleans, La.	E. B. NUTT.....	New York, N. Y.
JAY BARNES.....	New Orleans, La.	CLIFFORD E. PAIGE.....	Brooklyn, N. Y.
HOWARD BRUCE.....	Baltimore, Md.	I. K. PECK.....	Binghamton, N. Y.
FRANK L. CHASE.....	Dallas, Texas	A. E. PEIRCE.....	Warrenton, Va.
A. S. CORSON.....	Philadelphia, Pa.	J. A. PERRY.....	Philadelphia, Pa.
J. D. CREVELING.....	New York, N. Y.	J. F. QUINN.....	Brooklyn, N. Y.
F. C. FREEMAN.....	Providence, R. I.	GEO. W. RATCLIFFE.....	Pittsburgh, Pa.
R. W. GALLAGHER.....	New York, N. Y.	J. M. ROBERTS.....	Chicago, Ill.
O. S. HAGERMAN.....	Chicago, Ill.	F. M. ROSENKRANS.....	Kansas City, Mo.
C. A. HARRISON.....	Toledo, Ohio	N. T. SELLMAN.....	New York, N. Y.
W. H. HODGE.....	Chicago, Ill.	ARTHUR STOCKSTROM.....	St. Louis, Mo.
SAMUEL INSULL, JR.....	Chicago, Ill.	D. B. STOKES.....	Burlington, N. J.
F. B. JONES.....	Pittsburgh, Pa.	T. J. STRICKLER.....	Kansas City, Mo.
D. F. KAHN.....	Hamilton, Ohio	J. B. TONKIN.....	Pittsburgh, Pa.
F. A. LEMKE.....	Kalamazoo, Mich.	F. S. WADE.....	Los Angeles, Calif.
F. A. MILLER.....	Bradford, Pa.	T. R. WEYMOUTH.....	Pittsburgh, Pa.
W. F. MILLER.....	Chicago, Ill.	E. L. WILDER.....	New York, N. Y.

AFFILIATED ASSOCIATIONS

Association of Gas Appliance and Equipment Manufacturers

Pres.—William T. Rasch, American Gas Products Corp., New York, N. Y.
Exec. Sec.—C. W. Berghorn, 60 East 42nd St., New York, N. Y.

Canadian Gas Association

Pres.—John Keillor, British Columbia Electric Railway Co., Ltd., Vancouver, B. C.
Sec.-Tr.—G. W. Allen, 21 Astley Avenue, Toronto.

Empire State Gas and Electric Association

Pres.—E. R. Acker, Central Hudson Gas & Electric Co., Poughkeepsie, N. Y.
Chairman, Gas Section—R. R. Bogie, Kings County Lighting Co., Brooklyn, N. Y.
Sec.—C. H. B. Chapin, Grand Central Terminal, New York, N. Y.

Illinois Public Utilities Association

Pres.—A. D. Mackie, Central Illinois Light Co., Springfield, Ill.
Sec.—Jack Abbey, 607 Leland Office Bldg., Springfield, Ill.

Indiana Gas Association

Pres.—R. N. Zeek, Northern Indiana Public Service Co., Michigan City, Ind.
Sec.-Tr.—P. A. McLeod, New Castle, Ind.

Michigan Gas Association

Pres.—D. H. Frazer, Jr., Battle Creek Gas Co., Battle Creek, Mich.
Sec.-Tr.—A. G. Schroeder, Grand Rapids Gas Light Co., Grand Rapids, Mich.

Maryland Utilities Association

Pres.—W. A. Tobias, Hagerstown Light & Heat Co., Hagerstown, Md.
Sec.—W. J. Lank, 10th and E. Streets, Washington, D. C.

Mid-West Gas Association

Pres.—Frank H. Brooks, Northern Natural Gas Co., Omaha, Neb.
Sec.-Tr.—Roy B. Searing, Sioux City Gas & Electric Co., Sioux City, Iowa.

Missouri Association of Public Utilities

Pres.—C. E. Michel, Union Electric Light & Power Co., St. Louis, Mo.

Sec.-Tr.—N. R. Beagle, Missouri Power & Light Co., Jefferson City, Mo.

Asst. Sec.—Jesse Blythe, 103 West High St., Jefferson City, Mo.

New England Gas Association

Pres.—F. L. Ball, New England Power Association, Boston, Mass.
Exec. Sec.—Clark Belden, 41 Mt. Vernon St., Boston, Mass.

New Jersey Gas Association

Pres.—Herbert E. Cliff, Public Service Electric & Gas Co., Newark, N. J.

Sec.-Tr.—G. B. Webber, Public Service Electric and Gas Co., Newark, N. J.

Ohio Gas and Oil Men's Association

Pres.—Harry F. Moran, Ohio Oil Co., Findlay, Ohio.

Sec.-Tr.—Frank B. Maullar, 811 First National Bank Bldg., Columbus, Ohio.

Oklahoma Gas & Electric Association

Acting Sec.—Kate A. Niblack, 625 Biltmore Hotel, Oklahoma City, Okla.

Pacific Coast Gas Association

Pres.—H. M. Crawford, Pacific Gas & Electric Co., San Francisco, Calif.
Mang. Dir.—Clifford Johnstone, 447 Sutter St., San Francisco, Calif.

Pennsylvania Gas Association

Pres.—Edward W. Ehmann, Philadelphia Electric Co., Ardmore, Pa.

Sec.—Frank W. Lesley, Pennsylvania Gas & Electric Co., York, Pa.

Pennsylvania Natural Gas Men's Association

Pres.—T. B. Gregory, Union Heat & Light Co., Pittsburgh, Pa.

Sec.-Tr.—B. H. Smyers, Jr., 435 Sixth Ave., Pittsburgh, Pa.

Southern Gas Association

Pres.—C. B. Gamble, Birmingham Gas Co., Birmingham, Ala.

Sec.-Tr.—S. L. Drumm, New Orleans Public Service Inc., New Orleans, La.

The Public Utilities Association of Virginia

Pres.—T. Justin Moore, Va. Elec. & Power Co., Richmond, Va.

Wisconsin Utilities Association

Pres.—G. V. Rork, Northern States Power Co., Eau Claire, Wis.

Exec. Sec.—A. F. Herwig, 135 West Wells St., Milwaukee, Wis.

AMERICAN GAS ASSOCIATION, Inc.

HEADQUARTERS, 420 LEXINGTON AVENUE, NEW YORK, N. Y.

OFFICERS AND DIRECTORS

President	L. B. DENNING.....	Dallas, Texas
Vice-President	HERMAN RUSSELL.....	Rochester, N. Y.
Vice-President	N. C. McGOWEN.....	Shreveport, La.
Treasurer	J. F. ROONEY.....	New York, N. Y.
Managing Director	ALEXANDER FORWARD	New York, N. Y.
Assistant Manager	H. W. HARTMAN.....	New York, N. Y.
Secretary	KURWIN R. BOYES.....	New York, N. Y.
Director, Publicity-Advg.	C. W. PERSON.....	New York, N. Y.
Departmental Vice-Pres.	WM. MOELLER, JR.....	Los Angeles, Calif.
Sectional Vice-Pres.	F. L. GRIFFITH.....	Chicago, Ill.
Sectional Vice-Pres.	C. E. BENNETT.....	Pittsburgh, Pa.
Sectional Vice-Pres.	CHARLES W. GALE.....	Knoxville, Tenn.
Sectional Vice-Pres.	JOHN A. FRY.....	Detroit, Mich.
Sectional Vice-Pres.	F. A. LYDECKER.....	Newark, N. J.
Chairman, Pub. & Advg. Com.	HENRY OBERMEYER.....	New York, N. Y.

WALTER C. BECKJORD. Pittsburgh, Pa.	ARTHUR HEWITT.....	Toronto, Canada
H. O. CASTER.....New York, N. Y.	GEORGE S. HAWLEY.....	Bridgeport, Conn.
CHARLES M. COHN. Baltimore, Md.	C. W. HUNTER.....	Philadelphia, Pa.
H. C. COOPER.....Pittsburgh, Pa.	CONRAD N. LAUER.....	Philadelphia, Pa.
ADDISON B. DAY.....Los Angeles, Calif.	B. J. MULLANEY.....	Chicago, Ill.
J. S. DEHART, Jr.Newark, N. J.	F. A. NEWTON.....	New York, N. Y.
B. J. DENMAN.....Chicago, Ill.	W. T. RASCH.....	New York, N. Y.
H. L. DOHERTY.....New York, N. Y.	THOS. E. ROACH.....	Tacoma, Wash.
O. H. FOGG.....New York, N. Y.	W. FRANK ROBERTS.....	Baltimore, Md.
P. S. YOUNG.....Newark, N. J.		

SECTION AND DEPARTMENT OFFICERS

NATURAL GAS—Chairman	WM. MOELLER, JR.....	Los Angeles, Calif.
Vice-Chairman	GEORGE E. WELKER.....	Oil City, Pa.
Secretary	A. E. HIGGINS.....	Dallas, Texas
ACCOUNTING—Chairman	F. L. GRIFFITH.....	Chicago, Ill.
Vice-Chairman	E. J. TUCKER.....	Toronto, Ont., Can.
Secretary	H. W. HARTMAN.....	New York, N. Y.
COMMERCIAL—Chairman	C. E. BENNETT.....	Pittsburgh, Pa.
Vice-Chairman	F. M. BANKS.....	Los Angeles, Calif.
Secretary	J. W. WEST, JR.....	New York, N. Y.
INDUSTRIAL GAS—Chairman	CHARLES W. GALE.....	Knoxville, Tenn.
Vice-Chairman	RALPH L. MANIER.....	Syracuse, N. Y.
Secretary	EUGENE D. MILENER.....	New York, N. Y.
MANUFACTURERS—Chairman	JOHN A. FRY.....	Detroit, Mich.
Vice-Chairman	MERRILL N. DAVIS.....	Bradford, Pa.
Vice-Chairman	J. SCOTT FOWLER.....	Philadelphia, Pa.
TECHNICAL—Chairman	F. A. LYDECKER.....	Newark, N. J.
Vice-Chairman	M. I. MIX.....	Chicago, Ill.
Secretary	H. W. HARTMAN.....	New York, N. Y.
PUBLICITY & ADVERTISING COMMITTEE—Chairman	HENRY OBERMEYER.....	New York, N. Y.

